Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

file

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MINERALS MANAGEMENT SERVICE
OIL & GAS OPERATIONS
RECEIVED
OCT 20 1982
SALT LAKE CITY, UTAH

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: U-20894

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Bullpen Federal

9. WELL NO.: #1-14

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 14, T38S-R23E

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Raymond T. Duncan c/o Permitco

3. ADDRESS OF OPERATOR: 1020 - 15th St., Ste. 22E, Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 2600' FSL & 850' FEL
At proposed prod. zone: Section 14, T38S-R23E

12. COUNTY OR PARISH: San Juan | 13. STATE: Utah

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: Located 14.7 miles southeast from Blanding, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
40'	1920	160
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
None	6400'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 5426' Gr.

22. APPROX. DATE WORK WILL START*: November 1, 1982

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48.0#	110'	Cmt to surf. w/class "A"
12-1/4"	8-5/8"	24.0#	2500'	1000 sx class "G" - circ.
7-7/8"	5-1/2"	15.5#	6400'	300 sx class "G" or suffic. to cover zones of interest

We propose to drill a well to 6400' to test the Ismay and Desert Creek formations. If productive, we will run casing and complete. If dry, we will plug and abandon as per Minerals Management Service and State of Utah requirements.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED John W Lowry TITLE District Drilling & Production Superintendent DATE 10/18/82

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY W Martens FOR E. W. GUYNN TITLE DISTRICT OIL & GAS SUPERVISOR DATE NOV 16 1982

CONDITIONS OF APPROVAL, IF ANY:

NOTICE OF APPROVAL

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY

FLARING OR VENTING OF GAS IS SUBJECT TO NTL 4-A DATED 1/1/80

State O & G

FINAL ANALYSIS

The Raymond T. Duncan No. 1-14 Bullpen Federal was drilled to a total depth of 6382 feet into the Chimney Rock (AKAH) Salt Member of the Paradox Formation. This wildcat was drilled to explore a seismic high and to see if any algal mound porosity build-up was present in the Ismay and Desert Creek Members of the Paradox Formation. This well was drilled with no geological difficulties. A salt mud system was tried at this location (70,000 PPM chlorides) and created problems in drilling this well. The mud aired up and made pumping the fluid difficult. Erratic and slow drilling accompanied these problems. Pump pressure dropped and at times made drilling impossible. Some of these problems could have been eased or eliminated if better equipment was present on the rig and better monitering by the rig crews. A decision was made to change the mud company and the mud to a saturated salt system (215,000 PPM Chlorides). After mixing and conditioning the mud, drilling was resumed with no more difficulties. The crew of mudloggers from Tooke Engineering did an excellent and commendable job.

It was determined that the Paradox Formation did come in high, but with no oil or significant gas shows. In evaluating the zones penetrated at this location:

Upper Ismay - very thin tight limestones with no oil or gas shows. Background gas was 10-15 units total gas throughout the Upper Ismay. No significant porosity was penetrated in the Upper Ismay.

Lower Ismay - no significant porosity was drilled in this zone. Small increases in gas was observed while penetrating the black shales of the Lower Ismay. There are no pay zones in the Lower Ismay.

Upper Desert Creek - a thin two foot zone was present from 6239-6241 with some porosity and a small gas show. No porosity was observed nor any oil show was seen in the samples. There are no significant pay zones in the Upper Desert Creek.

Lower Desert Creek - very little porosity was present in the Lower Desert Creek. One very small gas increase was observed (16 units total gas) at 6306-6308. No oil show was observed from examination of the samples. There are no significant pay zones in the Lower Desert Creek.

No significant reservoir capabilities were penetrated at this location.

It was recommended that this well be plugged and abandoned.

SAMPLES:	30' Samples, surface to 2500' 10' Samples, 2500' to T.D. Wet cuts sent to Amstrat, Denver, CO 10' Samples dry cut, 2500' to T.D. - sent to Duncan in Denver. Show samples sent to Duncan in Denver.
CORES:	No cores cut
DRILL STEM TEST #1:	No DST in Ismay
DRILL STEM TEST #2:	No DST in Desert Creek
ELECTRICAL LOGS:	Schlumberger Well Services Farmington, New Mexico 87401 (505) 325-5006 Engineer: Tom Link
ELECTRICAL LOGS RUN:	DLL, MSFL (T.D. to 4950'), with GR and CAL Base surface casing to total depth BHC Sonic with GR and CAL Base surface casing to total depth FDC/CNL with GR and CAL Base surface casing to total depth

Permitco

A Petroleum Permitting Company

October 13, 1982

State of Utah
Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT 84114

RE: Raymond T. Duncan
#1-14 Bullpen Federal
2600' FSL & 850' FEL
Sec. 14, T38S-R23E
San Juan County, Utah

Gentlemen:

Raymond T. Duncan proposes to drill a well at the above-mentioned location.

We realize that this location is a non-standard location, in accordance with the spacing rules for the State of Utah. This location was picked due to extensive seismic work which was done in the immediate area.

Raymond T. Duncan is the lease holder of all of Section 14, T38S-R23E. Therefore, no other lease holders will be affected by the drilling of the above-proposed well.

We, therefore, request your permission to drill this well at a non-standard location.

Sincerely,

PERMITCO

Lisa L. Green
Consultant for
Raymond T. Duncan

LLG/tjb

Enclosures

cc: MMS - Salt Lake City, Durango
BLM - Monticello
Raymond T. Duncan

PERMITCO
1020 15th STREET - SUITE 22E
DENVER, COLORADO 80202

Form OGC-1a

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

(Other instructions on reverse side)

5. Lease Designation and Serial No.: U-20894

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

6. If Indian, Allottee or Tribe Name:

1a. Type of Work: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

7. Unit Agreement Name:

b. Type of Well: Oil Well [X] Gas Well [ ] Other — Single Zone [X] Multiple Zone [ ]

8. Farm or Lease Name: Bullpen Federal

2. Name of Operator: Raymond T. Duncan c/o Permitco

9. Well No.: #1-14

3. Address of Operator: 1020 - 15th St., Ste. 22E, Denver, CO 80202

10. Field and Pool, or Wildcat: Wildcat

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface: 2600' FSL & 850' FEL

11. Sec., T., R., M., or Blk. and Survey or Area

~~At proposed prod. zone~~: Section 14, T38S-R23E NE SE — Sec. 14, T38S-R23E

14. Distance in miles and direction from nearest town or post office*: Located 14.7 miles southeast from Blanding, Utah

12. County or Parrish: San Juan 13. State: Utah

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any): 40'

16. No. of acres in lease: 1920

17. No. of acres assigned to this well: 160

18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft.: None

19. Proposed depth: 6400' CHIMNEY ROCK

20. Rotary or cable tools: Rotary

21. Elevations (Show whether DF, RT, GR, etc.): 5426' Gr.

22. Approx. date work will start*: November 1, 1982

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
17-1/2"	13-3/8"	48.0#	110'	Cmt to surf. w/class "A"
12-1/4"	8-5/8"	24.0#	2500'	1000 sx class "G" - circulated.
7-7/8"	5-1/2"	15.5#	6400'	300 sx class "G" or sufficient to cover zones of interest

We propose to drill a well to 6400' to test the Ismay and Desert Creek formations. If productive, we will run casing and complete. If dry, we will plug and abandon as per Minerals Management Service and State of Utah requirements.

RECEIVED
OCT 20 1982
DIVISION OF OIL, GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

Signed: John W Lowry — Title: District Drilling & Production Superintendent — Date: 10/18/82

(This space for Federal or State office use)

Permit No. ..... Approval Date .....

Approved by ..... Title .....

Conditions of approval, if any:

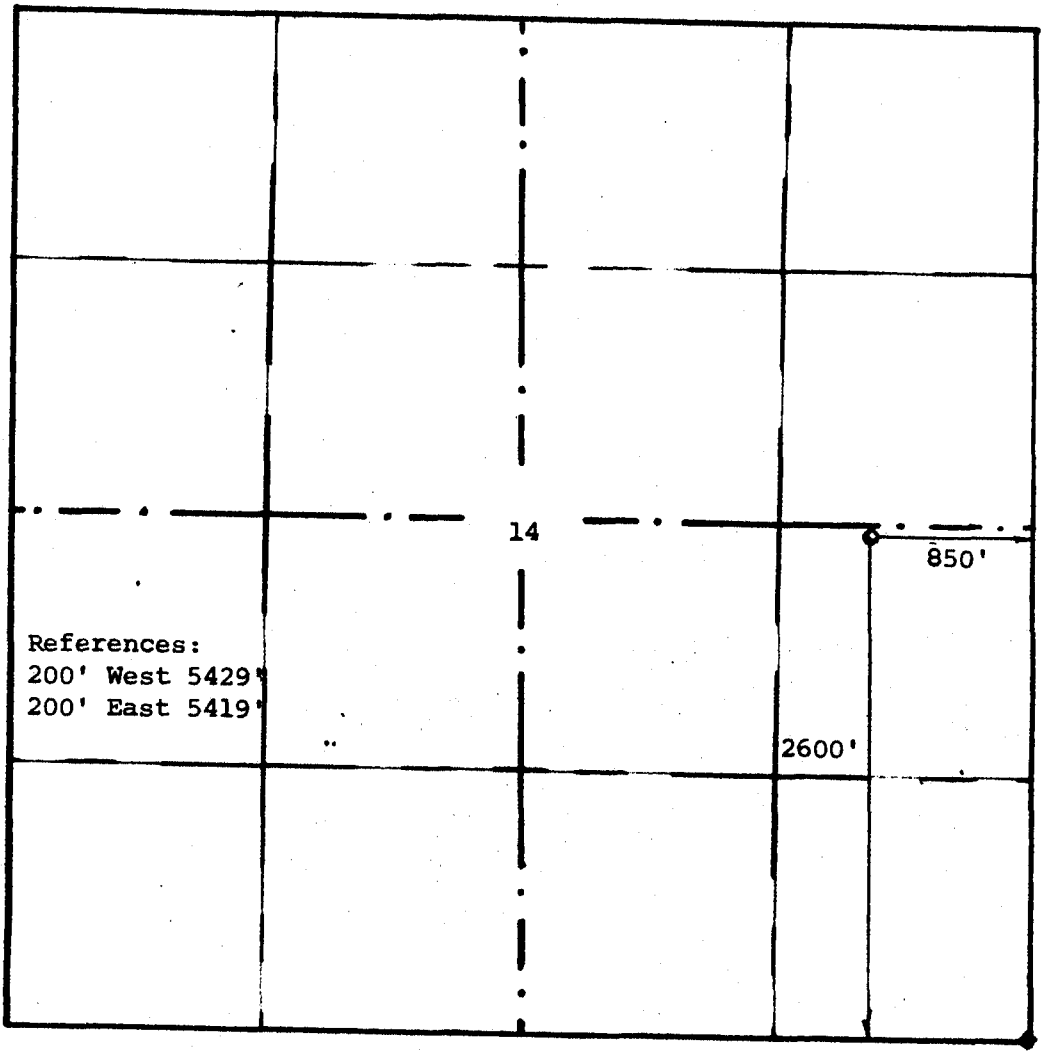
APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 10-21-82
BY: [signature]

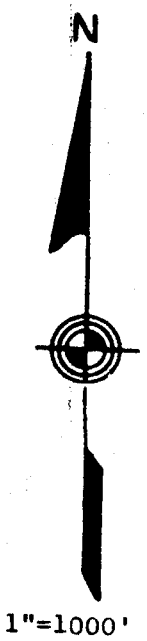
*See Instructions On Reverse Side

POWERS ELEVATION

PLAT #1

Well Location Plat



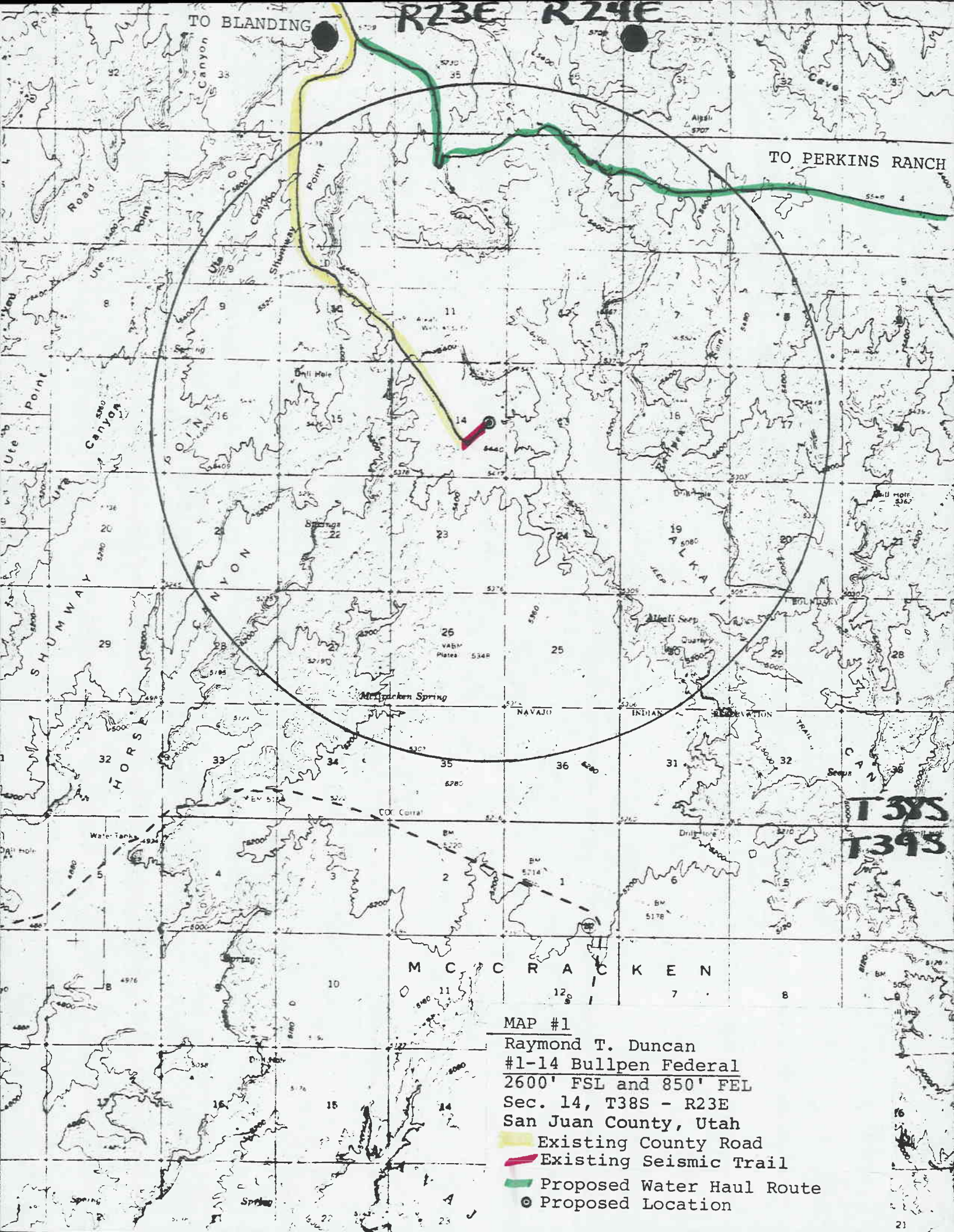


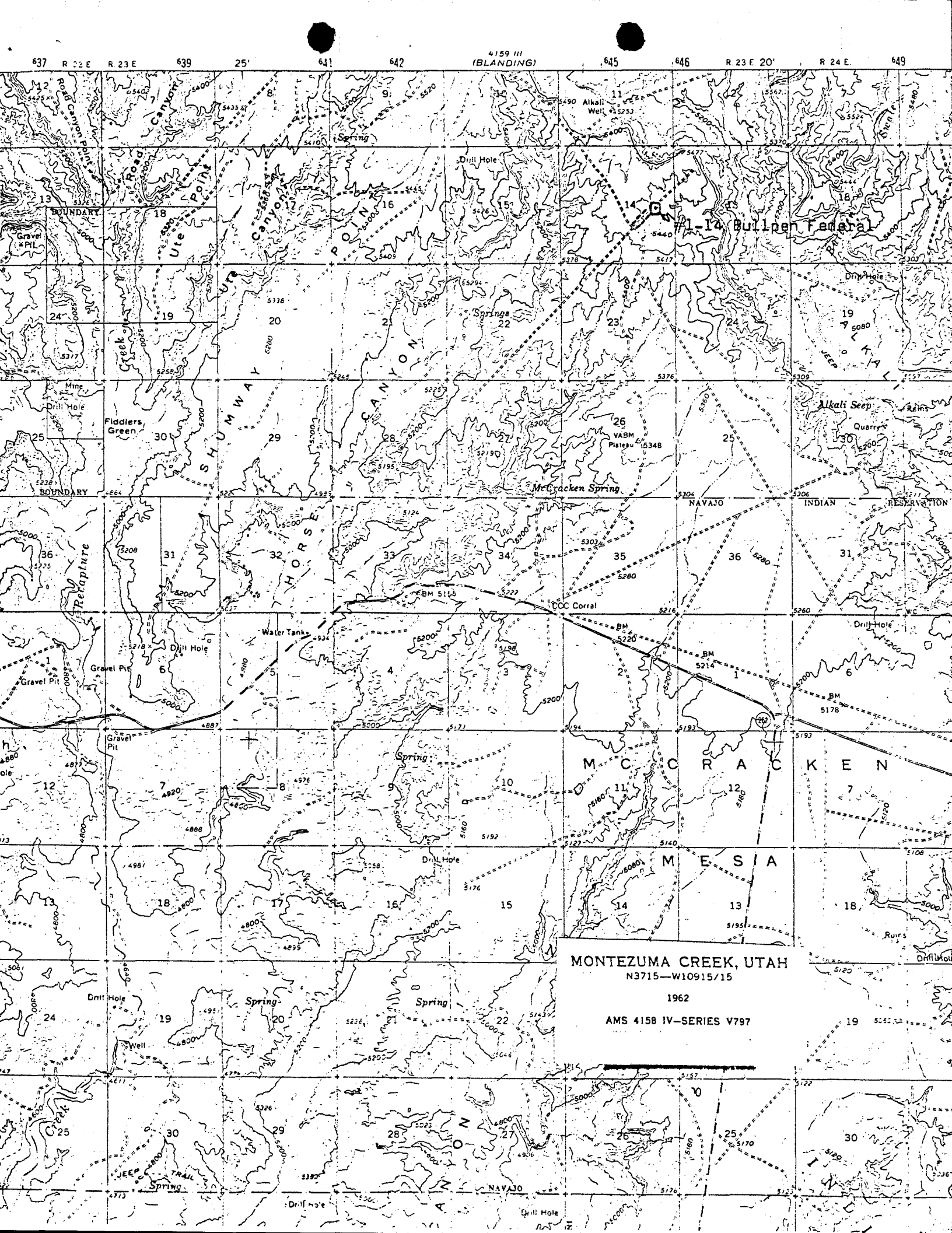
Operator: Raymond T. Duncan		Well name: 1-14 Bullpen Federal	
Section: 14	Township: 38 South	Range: 23 East	Meridian: Salt Lake
Footages: 2600'FSL & 850'FEL			County/State: San Juan, Utah
Elevation: 5426'	Requested by: Lisa Green		

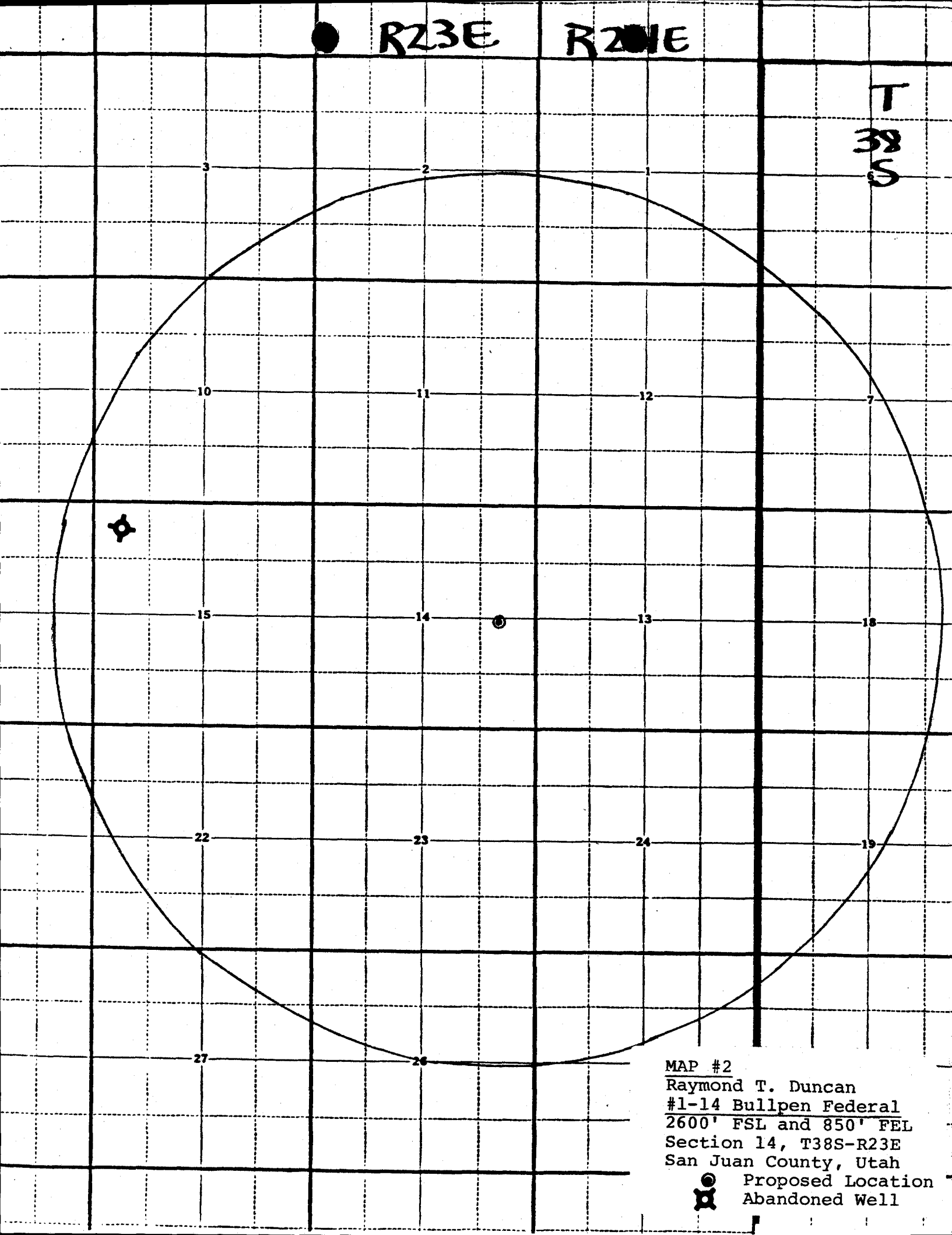
The above plat is true and correct to the best of my knowledge and belief.

9 Oct. 1982

Gerald G. Huddleston, L.S.
Utah Exception


TO BLANDING
R23E
R24E
TO PERKINS RANCH
T38S
T39S
MAP #1
Raymond T. Duncan
#1-14 Bullpen Federal
2600' FSL and 850' FEL
Sec. 14, T38S - R23E
San Juan County, Utah
Existing County Road
Existing Seismic Trail
Proposed Water Haul Route
Proposed Location


4159 III
(BLANDING)
637
R 22 E
R 23 E
639
25'
641
642
645
646
R 23 E 20'
R 24 E.
649
#1-14 Bullpen Federal
BOUNDARY
Ute Point
Road Canyon
Ute Canyon
POINT
Alkali Well
Drill Hole
Spring
Springs
Gravel Pit
Mine
Fiddlers Green
SHUMWAY
HORSE
CANYON
McCracken Spring
VABM Plateau 5348
Alkali Seep
Ruins
Quarry
NAVAJO
INDIAN
RESERVATION
Reraplure
BM 5165
COC Corral
Water Tank
BM 5220
BM 5214
BM 5178
M C C R A C K E N
M E S I A
Well
JEEP TRAIL
Spring
Drill Hole
Ruins
MONTEZUMA CREEK, UTAH
N3715—W10915/15
1962
AMS 4158 IV—SERIES V797



MAP #2
Raymond T. Duncan
#1-14 Bullpen Federal
2600' FSL and 850' FEL
Section 14, T38S-R23E
San Juan County, Utah
Proposed Location
Abandoned Well

Walter Duncan OIL PROPERTIES

1777 SOUTH HARRISON STREET · PENTHOUSE ONE
TELEPHONE (303) 759-3303 · DENVER, COLORADO 80210

October 18, 1982

TO WHOM IT MAY CONCERN

Permitco is authorized to act as agent on behalf of Raymond T. Duncan to file applications and necessary paperwork to obtain permits to drill oil and gas wells in the Rocky Mountain Area.

John W Lowry

RAYMOND T. DUNCAN

John W. Lowry
District Drilling and Production
Superintendent

Permitco

A Petroleum Permitting Company

October 13, 1982

State of Utah
Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT 84114

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#1-14 Bullpen Federal
2600' FSL & 850' FEL
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We, therefore, request your permission to drill this well at a non-standard location.

Sincerely,

PERMITCO

Lisa L. Green
Consultant for
Raymond T. Duncan

LLG/tjb

Enclosures

cc: MMS - Salt Lake City, Durango
BLM - Monticello
Raymond T. Duncan

412 Hilton Office Building 1515 Cleveland Place Denver, Colorado 80202 303-595-4051

TEN POINT COMPLIANCE PROGRAM
OF NTL-6 APPROVAL OF OPERATIONS

Raymond T. Duncan
#1-14 Bullpen Federal
2600' FSL & 850' FEL
Section 14, T38S-R23E
San Juan County, Utah

1. The outcropping geologic formation is the Morrison.

2. The estimated formation tops to be encountered are as follows:

Formation	Depth	Subsea
Hermosa	4900'	+ 530
Ismay	6020'	- 590
Lower Ismay	6175'	- 745
Gothic Shale	6240'	- 810
Desert Creek	6265'	- 835
Lower Desert Creek	6320'	- 890
Chimney Rock	6350'	- 920
T.D.	6400'	

3. The following depths are estimated for oil and gas bearing zones:

Substances	Formation	Anticipated Depth
Oil & Gas	Ismay	6020'
Oil & Gas	Desert Creek	6265'

4. a. The proposed casing program will be as follows:

Purpose	Depth	Hole Size	O.D.	Weight	Grade	Type	
Conductor	110'	17-1/2"	13-3/8"	48.0#	K-55	ST&C	New
Surface	2500'	12-1/4"	8-5/8"	24.0#	K-55	ST&C	New
Production	6400'	7-7/8"	5-1/2"	15.5#	K-55	ST&C	New

b. The cement program will be as follows:

Conductor 0 - 110'	Type and Amount Cement to surface with Class "A"
Surface 110' - 2500'	Type and Amount 1000 sx. Class "G" plus additives or sufficient to circulate
Production 2500' - 6400'	Type and Amount 300 sx. Class "G" plus additives or sufficent to cover zones of interest

Permitco
A Petroleum Permitting Company

TEN POINT COMPLIANCE PROGRAM
OF NTL-6 APPROVAL OF OPERATIONS

Raymond T. Duncan
#1-14 Bullpen Federal
2600' FSL & 850' FEL
Section 14, T38S-R23E
San Juan County, Utah

5. Blowout preventer stack will consist of a 10", 3000# W.P. BOP. See BOP Diagram. Equipment will be tested prior to drilling out from under surface and operational checks will be made daily thereafter.

6. Drilling fluid will be as follows:

Interval	Mud Type	Mud Wt.	Visc.	F/L	PH
0 - 4200'	Natural	9.0-9.2	35	10-20	7
4200 - 6400'	Chem Gel	9.5-12.0	45	5-10	9-10

7. Auxiliary equipment to be used is as follows:
   a. Kelly cock
   b. Float above the bit
   c. Monitoring of the system will be done visually.
   d. A sub with a full opening valve will be on the floor when the kelly is not in use.

8. Testing, logging and coring will be as follows:
   a. The following two cores will be run: (1) Ismay - 6020'; and (2) Desert Creek - 6265'.
   b. Drill stem tests will be run in (1) Ismay - 6020' and (2) Desert Creek - 6265'.
   c. The logging program will consist of Dual Induction: 2500' to T.D.; BHC Acoustic: 2500' to T.D.; BHC Density/CNL: 2500' to T.D.; and Dipmeter (Strat): 6000' to T.D.
   d. Stimulation will be determined after the evaluation of the logs and any DST's that are run. If treatment is needed, a sundy notice will be submitted.
   e. We request permission of flare the Ismay and Desert Creek formations for a period of 120 days each. This time period is necessary to adequately evaluate the extent of the reservoir and to analyze the decline rates.

9. No abnormal pressures or hydrogen sulfide gas are anticipated during the course of drilling to T.D. The maximum bottom hole pressure to be expected is 3500 psi.

10. Raymond T. Duncan plans to spud the #1-14 Bullpen Federal on November 1, 1982, and intends to complete the well within approximately one month after the well has reached T.D.

Permitco
A Petroleum Permitting Company

MULTI-POINT REQUIREMENTS TO ACCOMPANY A.P.D.

Raymond T. Duncan
#1-14 Bullpen Federal
2600' FSL & 850' FEL
Section 14, T38S-R23E
San Juan County, Utah

Gentlemen:

We submit the following application and plats for permission to drill the #1-14 Bullpen Federal.

1. Existing Roads

   a. The proposed well site and elevation plat is shown on Plat #1.

   b. Directions to the location from Blanding, Utah, are as follows: Go south on Hwy. 163 for 1 mile. Turn east on to gravel road and go 1 mile. Turn right and go southeast 8.8 miles to a fork in the road. Take the right fork on to dirt road and go south following main road for 3.6 miles. Turn left and go 3/10 of a mile on existing seismic trail to the location.

   c. For access roads, see Map #1.

   d. All existing roads within a 3-mile radius are shown on Map #1.

   e. All access will be from the north as shown on Map #1 to avoid the Navajo Reservation.

   f. This is an exploratory well. All roads within a one-mile radius of the well site are shown on Map #1.

   g. All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.

   h. Improvement to existing access will be necessary and will be limited to a total width of 20 feet. No new construction will be necessary. Surfacing material will not be placed on the access road or location without prior BLM approval.

   i. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

2. Planned Access Roads

   a. New access road will be approximately 20 feet wide.

Permitco
A Petroleum Permitting Company

MULTI-POINT REQUIREMENTS
TO ACCOMPANY A.P.D.

Raymond T. Duncan
#1-14 Bullpen Federal
2600' FSL & 850' FEL
Section 14, T38S-R23E
San Juan County, Utah

2. Planned Access Roads (cont.)

   b. The grade will be 5% or less.

   c. No turnouts are planned.

   d. There will be no ditching. Water bars will be constructed as directed by the Bureau of Land Management to control erosion.

   e. There is an existing drainage to the east of the location, but will not be disturbed by construction.

   f. No culverts will be necessary. The maximum cut is 5 feet. The maxumum fill is 6 feet.

   g. Only native materials will be utilized.

   h. No gates, cattle guards, or fence cuts will be necessary.

   i. The last 3/10 of a mile is an existing seismic trail and will be 20 feet wide with grade not to exceed 2%.

3. Location of Existing Wells (See Map #2)

   a. Water wells - none

   b. Abandoned wells - one

   c. Temporarily abandoned wells - none

   d. Disposal wells - none

   e. Drilling wells - none

   f. Producing wells - none

   g. Shut in wells - none

   h. Injection wells - none

   i. Monitoring observation wells - none

4. Location of Existing and/or Proposed Facilities

   a. There are no production facilities or gas gathering lines owned or controlled by Raymond T. Duncan within a one-mile radius of the proposed well.

   b. New facilities contemplated in the event of production are shown on Diagram #1.

      1. Proposed tank battery will be located as shown on Diagram #1.

Permitco

A Petroleum Permitting Company

MULTI-POINT REQUIREMENTS
TO ACCOMPANY A.P.D.

Raymond T. Duncan
#1-14 Bullpen Federal
2600' FSL & 850' FEL
Section 14, T38S-R23E
San Juan County, Utah

4. Location of Existing and/or Proposed Facilities (cont.)

   2. All flow lines from well site to battery site will be buried below frost line depth.

   3. Dimensions of the facilities will be 207 feet long and 160 feet wide. See Diagram #1.

   4. All above ground production facilities will be painted a neutral color to be approved by the Bureau of Land Management.

   5. Only native materials will be utilized.

   6. An earthen dike utilizing subsoil in the surrounding area will be built around the storage tanks and separator to contain oil should a leak occur. Any necessary pits will be properly fenced to prevent any wildlife entry. The production pit will be flagged overhead.

   7. The access shall be upgraded to the following specifications (if production is established). The road shall be 20 feet wide, crowned and ditched. Culverts will be installed as deemed necessary by the Bureau of Land Management.

5. Location and Type of Water Supply

   a. The source of water will be the Perkins Ranch which is located in Section 7, T38S-R25E. Directions to the water source are shown on Map #1.

   b. Water will be trucked to location over the roads marked on Map #1.

   c. No water well is to be drilled on this lease.

   d. A temporary use permit will be obtained from the Utah State Engineer (801)647-1303 before using this water source.

6. Source of Construction Materials

   a. Only native materials are to be utilized.

   b. No construction materials will be taken off Federal land or removed from Indian lands.

   c. Surface and subsoil materials in the immediate area will be utilized. Any gravel will be purchased from a commercial source.

   d. All major access roads are shown on Map #1.

MULTI-POINT REQUIREMENTS
TO ACCOMPANY A.P.D.

Raymond T. Duncan
#1-14 Bullpen Federal
2600' FSL & 850' FEL
Section 14, T38S-R23E
San Juan County, Utah

7. Methods for Handling Waste Disposal

a. Drill cuttings are to be contained and buried in the reserve pit.

b. Drilling fluids are to be contained in the reserve pit.

c. The produced fluids will be produced into a test tank until such time as construction of production facilities is completed. Any spills of oil, gas, salt water or other produced fluids will be cleaned up and removed.

d. A chemical porta-toilet will be furnished with the drilling rig.

e. If a trash pit is used, it will be constructed near the mud tanks with steep sides and dug at least six feet into solid undisturbed material. It will be totally enclosed with fine mesh wire before the rig moves in.

f. The reserve pit will not be lined. At least half of the capacity will be in cut.

g. Three sides of the reserve pit will be fenced with four strands of barbed wire before drilling operations begin. The fourth side will be fenced as soon as the drilling is completed. The fence will be kept in good repair while the pit is drying.

h. Trash will not be disposed of in the reserve pit. Garbage and nonflammable waste are to be contained in the trash pit. Flammable waste is to be contained in the burn pit. The trash is to be burned periodically and the remains buried when the well is completed. A burning permit will be obtained from the State Fire Warden, (801) 587-2705, before burning trash.

i. All trash, garbage, etc. is to be gathered and buried at the end of drilling operations and covered with a minimum of 2 feet of earth. Immediately on completion of drilling, the location and surrounding area will be cleared of all debris resulting from the operation. Nonburnable debris will be hauled to a local town dump. Reserve and mud pits will be allowed to dry after drilling is completed and then adequately filled and leveled. All garbage and sewage pits will be filled as soon as the rig leaves the location.

MULTI-POINT REQUIREMENTS
TO ACCOMPANY A.P.D.

Raymond T. Duncan
#1-14 Bullpen Federal
2600' FSL & 850' FEL
Section 14, T38S-R23E
San Juan County, Utah

8. Ancillary Facilities

a. There are no airstrips, camps, or other facilities planned during the drilling of the proposed well.

9. Well Site Layout

a. See Diagram #2 for rig layout. See Diagram #3 for cross section of drill pad. See Diagram #4 for cuts and fills.

b. The location of mud tanks; reserve, burn and trash pits; pipe racks; living facilities; and soil stockpiles will be shown on Diagram #2. The location will be laid out and constructed as discussed during the pre-drill conference.

10. Plans for Restoration of Surface

a. Immediately upon completion of drilling, all trash and debris will be collected from the location and surrounding area. All trash and debris will be disposed of in the trash pit and will then be compacted and buried under a minimum of 2 feet of compacted soil.

b. The operator or his contractor will contact the BLM office in Monticello, Utah (801) 587-2201, 48 hours before starting reclamation work that involves earthmoving equipment and upon completion of restoration measures.

c. Before any dirt work to restore the location takes place, the reserve pit will be completely dry.

d. All disturbed areas will be recontoured to blend as nearly as possible with the natural topography. This includes removing all berms and refilling all cuts.

e. The stockpiled topsoil will be spread evenly over the disturbed area. All disturbed areas will be scarified with the contour to a depth of 12 inches.

f. Water bars will be built as follows to control erosion:

Grade	Spacing
2%	Every 200 feet
2-4%	Every 100 feet
4-5%	Every 75 feet
5+%	Every 50 feet

g. Seed will be broadcast between October 1 and February 28 with the following prescription. When broadcast seeding, a harrow or similar implement will be dragged over the seeded area to assure seed cover.

MULTI-POINT REQUIREMENTS
TO ACCOMPANY A.P.D.

Raymond T. Duncan
#1-14 Bullpen Federal
2600' FSL & 850' FEL
Section 14, T38S-R23E
San Juan County, Utah

10. Plans for Restoration of Surface (cont.)

Seed Mixture:

2 lbs./acre - Indian ricegrass
2 lbs./acre - Fourwing saltbush
4 lbs./acre - Crested wheatgrass
1 lb./acre - Curleygrass

After seeding is complete, the stockpiled trees will be scattered evenly over the disturbed areas. The access will be blocked to prevent vehicular access.

h. The reserve pit and that portion of the location and access road not needed for production or production facilities will be reclaimed as described in the reclamation section. Enough topsoil will be kept to reclaim the remainder of the location at a future date. This remaining stockpile of topsoil will be seeded in place using the prescribed seed mixture.

i. The access shall be upgraded to BLM Class III road specifications, if production is established.

j. The top 12 inches of soil material will be removed from the location and stockpiled separate from the trees on the north side of the location. Topsoil along the access will be reserved in place

11. Other Information

a. Topography - gently undulating terrain at the extreme north end of McCracken Mesa. Characterized by rolling hills and low ridges.

b. Vegetation - primarily Big Sagebrush with a few scattered juniper. Snakeweed and bunch grass are also found.

c. Soils - consist of aeolian fine sand which has a depth of at least two meters.

d. Fauna - may consist of burrowing animals, birds, snakes and sheep, however, none were seen while at the on-site inspection.

e. Surface in the area is owned by the Bureau of Land management and may be used for sheep grazing.

f. The nearest water is the Perkins Ranch which is located in Sec. 7, T38S - R25E.

Permitco

A Petroleum Permitting Company

MULTI-POINT REQUIREMENTS
TO ACCOMPANY A.P.D.

Raymond T. Duncan
#1-14 Bullpen Federal
2600' FSL and 850' FEL
Section 14, T38S - R23E
San Juan County, Utah

11. Other Information (cont.)

g. The nearest occupied dwelling is the Perkins Ranch which is located in Sec. 7, T38S - R25E.

h. An archeological study was performed. No significant cultural resources were found and clearance is recommended. See Archeological report attached.

i. Drilling will begin approximately November 1, 1982.

j. If subsurface cultural material is exposed during construction, work in that spot will stop immediately and the San Juan Resource Area Office will be contacted. All employees working in the area will be informed by the operator that they are subject to prosecution for disturbing archeological sites or picking up artifacts. Salvage or excavation of identified archaeological sites will only be done if damage occurs.

k. The operator will notify the San Juan Resource Area BLM Office in Monticello, Utah (801/587-2201) 48 hours prior to beginning any work on public land.

l. The San Juan County Road Department in Monticello, Utah will be contacted prior to use of county roads. (801/587-2249).

m. The operator will give the dirt contractor a copy of the Surface Use Plan and any additional BLM stipulations before any work is done.

12. Lessee's or Operator's Representative

Mr. John Lowry, District Drilling and Production Superintendent, will be Raymond T. Duncan's representative. Mr. Lowry can be reached in Denver, Colorado at his office (303-759-3303) or at home (303/922-2018).

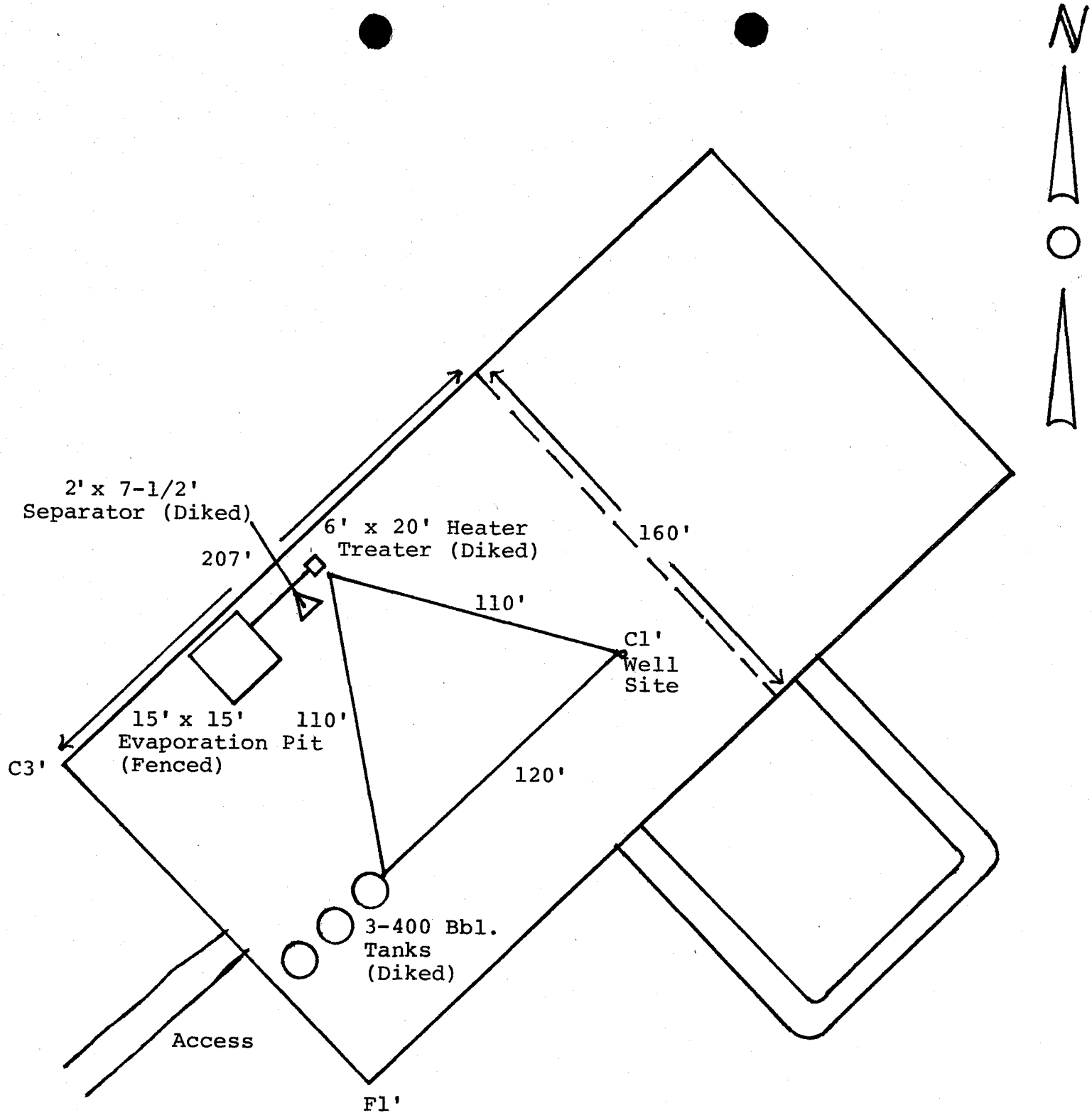
13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Raymond T. Duncan and its contractors and subcontractors in conformity with the plan and the terms and conditions under which it is approved.

10/18/82
Date

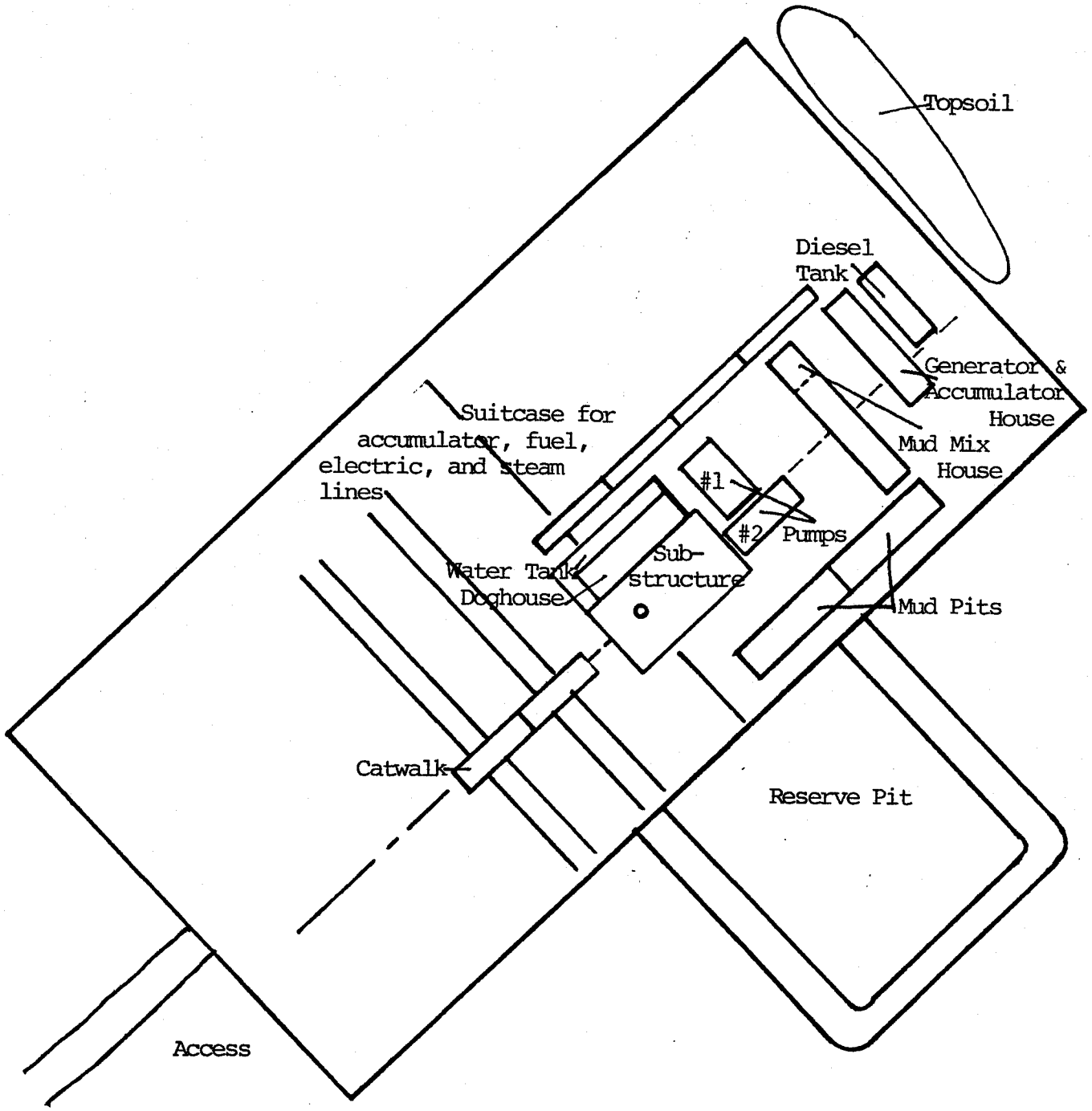
John W. Lowry - District Drilling and Production Superintendent for Raymond T. Duncan

Permitco
A Petroleum Permitting Company



Scale: 1" = 50'

DIAGRAM #1
Production Facilities
Raymond T. Duncan
#1-14 Bullpen Federal
2600' FSL and 850' FEL
Section 14, T38S-R23E
San Juan County, Utah



Scale: 1" = 50'

DIAGRAM #2
Rig Layout
Raymond T. Duncan
#1-14 Bullpen Federal
2600' FSL and 850' FEL
Section 14, T38S-R23E
San Juan County, Utah

POWERS ELEVATION

1-14 Bullpen Federal

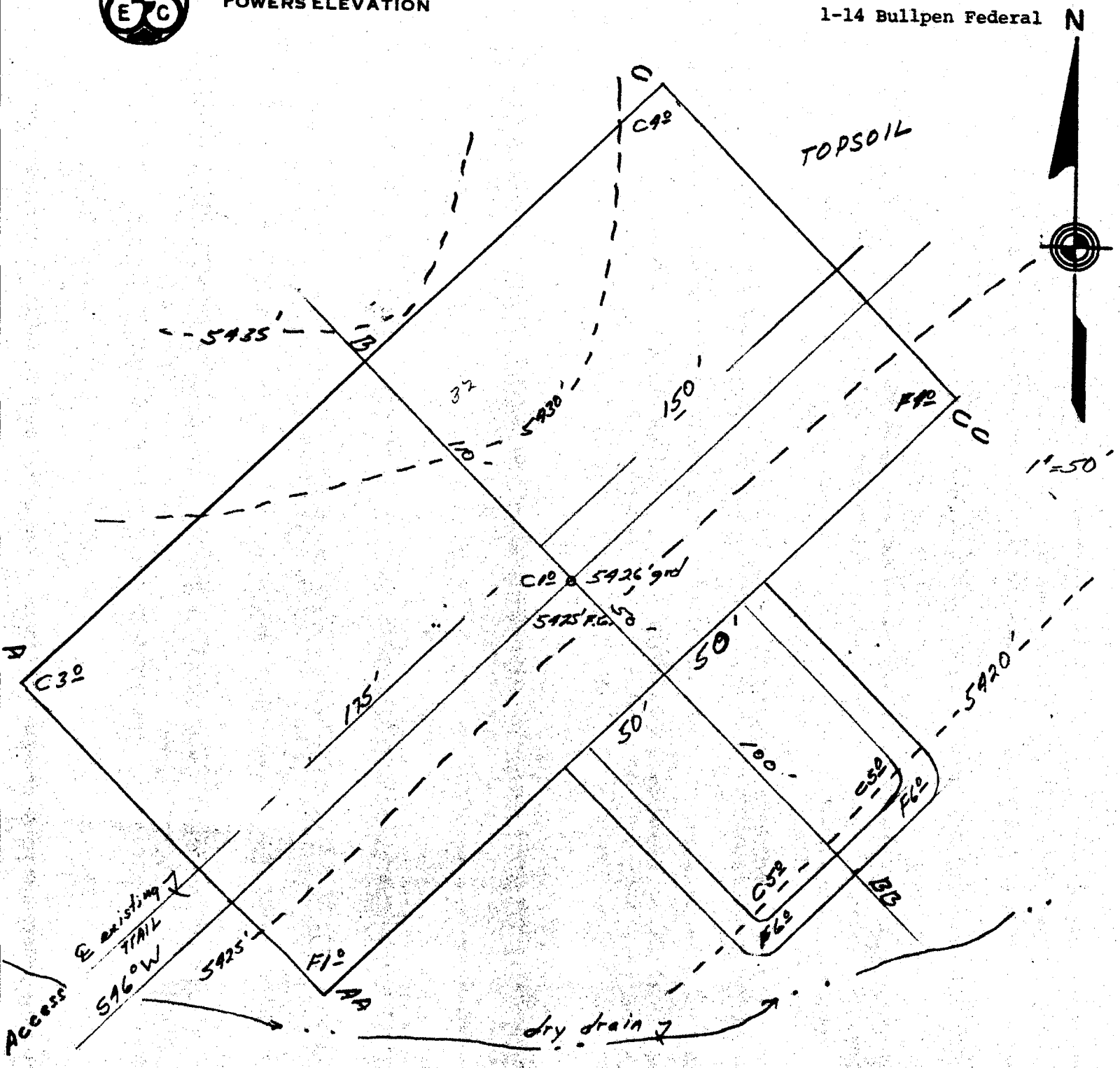


DIAGRAM #3
Raymond T. Duncan
#1-14 Bullpen Federal
2600' FSL and 850' FEL
Section 14, T38S-R23E
San Juan County, Utah

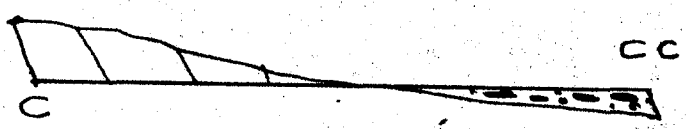
POWERS ELEVATION

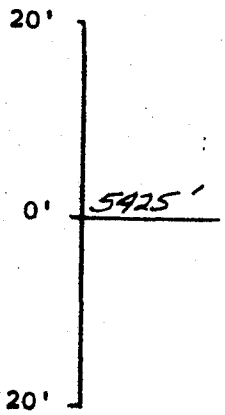
OIL WELL ELEVATIONS — LOCATIONS
ENVIRONMENTAL — ARCHAEOLOGICAL SERVICES
600 SOUTH CHERRY STREET, SUITE 1201
DENVER, COLORADO 80222
PHONE NO. 303/321-2217

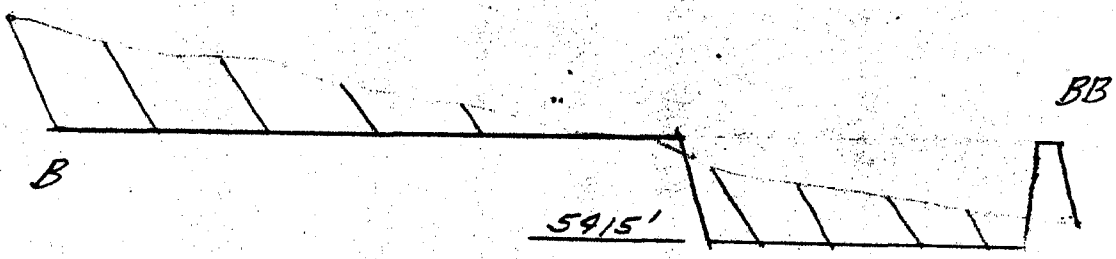
Well 1-14 Bullpen Federal

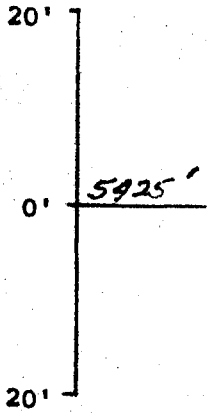
Cut ////////
Fill :

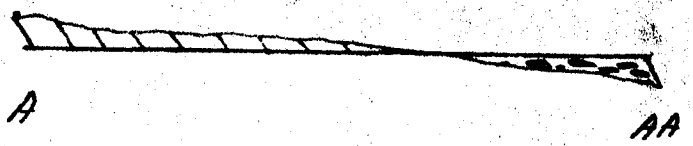
Scales: 1"=50'H.
1'=20'V.











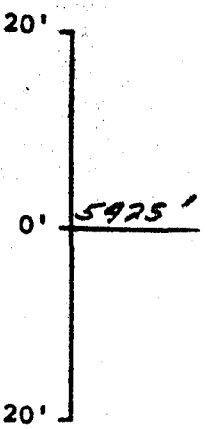


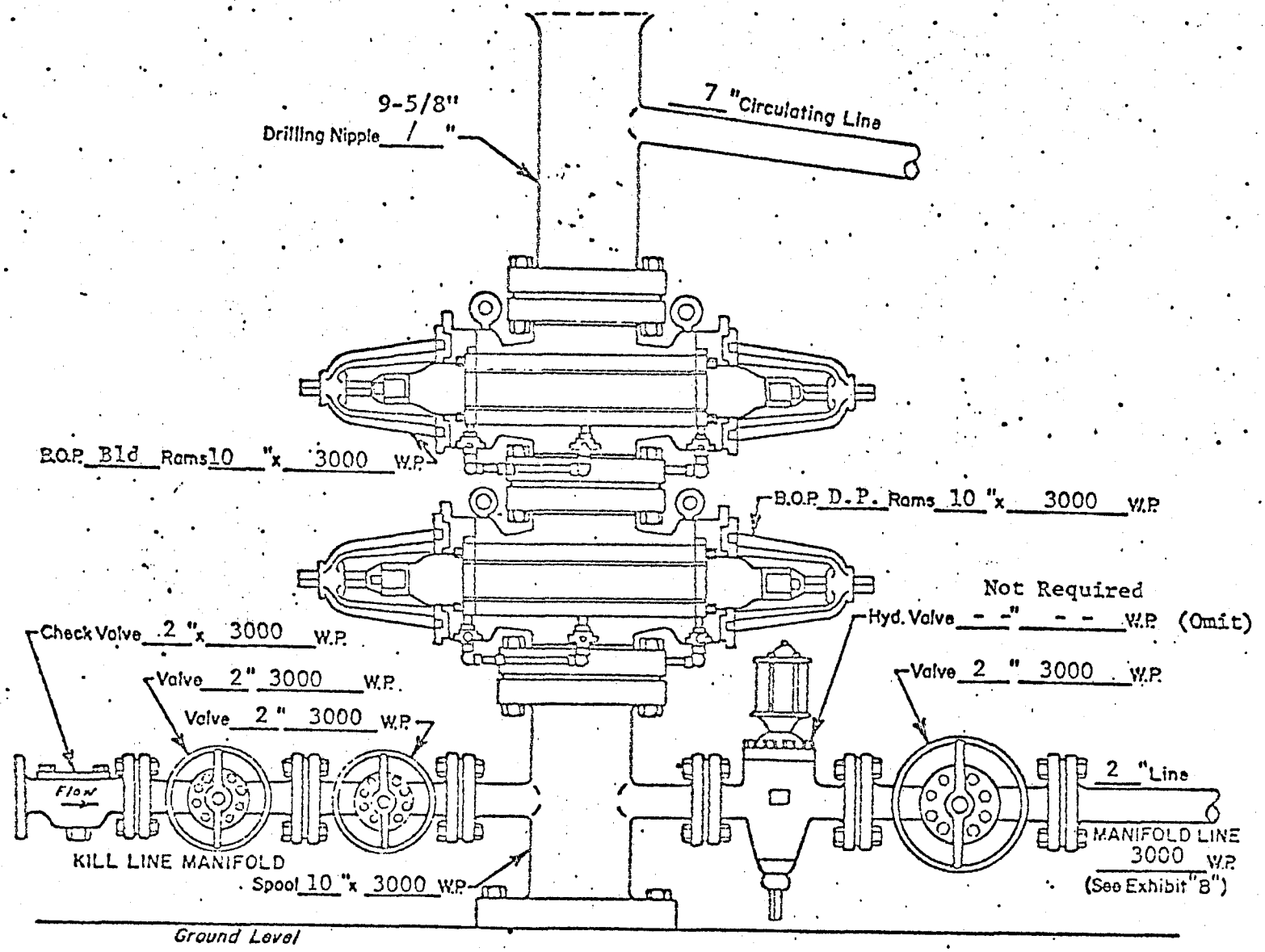
DIAGRAM #4
Raymond T. Duncan
#1-14 Bullpen Federal
2600' FSL and 850' FEL
Section 14, T38S-R23E
San Juan County, Utah

COLEMAN DRILLING CO.

WELL NAME: _____

LOCATION : _____

_____



WELL HEAD B.O.P.

3000 #W.P

☒ Hydraulic

La Plata Archeological Consultants, Inc.

Post Office Box 783
Dolores, Colorado 81323
(303) 882-4933

October 11, 1982

Mr. Chas Cartwright
Area Archeologist
Bureau of Land Management
P.O. Box 7
Monticello, Utah 84535

Mr. Cartwright:

Please find enclosed the archeological survey report for Walter Duncan Oil Properties' #1-14 Bullpen Federal well pad and access road, located in San Juan County, Utah. Archeological clearance is recommended.

Sincerely,

Patrick L. Harden
President

PLH/rjs

Distribution:

BLM - Moab
USGS - Salt Lake City (4)
Durango
Permitco
Walter Duncan Oil Properties

AN ARCHEOLOGICAL SURVEY OF WALTER DUNCAN OIL PROPERTIES' #1-14 BULLPEN FEDERAL WELL PAD AND ACCESS ROAD SAN JUAN COUNTY, UTAH

LAC REPORT 8231

BY
PATRICK L. HARDEN

LA PLATA ARCHEOLOGICAL CONSULTANTS, INC.
P.O. BOX 783
DOLORES, COLORADO 81323
303-882-4933

OCTOBER 11, 1982

Federal Antiquities Permit
#82-UT-160

Prepared For:
Walter Duncan Oil Properties
Penthouse
1777 S. Harrison St.
Denver, Colorado 80210

ABSTRACT

An archeological survey of Walter Duncan Oil Properties' #1-14 Bullpen Federal well pad and approximately 1000 feet of access road was conducted on October 8, 1982, by Patrick Harden of La Plata Archeological Consultants, Inc., Dolores, Colorado. The project is located on lands administered by the San Juan Resource Area of the Bureau of Land Management, San Juan County, Utah. No significant cultural resources were located and archeological clearance is recommended for this project.

INTRODUCTION

The archeological survey for the #1-14 Bullpen Federal well pad project was requested by Ms. Lisa Green, acting permit agent for Duncan Oil Properties. The survey was performed in conjunction with the pre-drill inspection conducted on October 8, 1982. Persons attending the pre-drill were Ms. Green (Permitco), John Lowery (Duncan Oil), Brian Wood (BLM), Don Englishman (USGS), Gerald Huddleston (Powers Elevation), Al Heaton (Urado Construction), and Patrick Harden (LAC).

The well pad is located in the NW¼, NE¼, SE¼, of section 14, T38S, R23E, San Juan County, Utah. The area is included on the Montezuma Creek, Utah 15' series topographic map (1962).

PROJECT DESCRIPTION

The proposed project consists of the construction of a single well pad and slight improvements to ca. 1000' of existing access road. The well pad will be ca. 250 x 330' in size. Both

the well pad and access road were staked and/or flagged by the land surveyor prior to the archeological inspection. The access route is along an existing field road, which joins an improved dirt road west of the well pad.

PHYSIOGRAPHY

The project area is located in gently undulating terrain at the extreme north end of McCracken Mesa. The area is characterized by rolling sage covered hills and low ridges, with little topographic relief. McCracken Mesa dips to the southwest. Well entrenched and steep walled canyons border the northern McCracken Mesa area on the east and west (Alkali and Horse Canyons).

Vegetation is primarily Big Sagebrush, with a few scattered juniper present. Snakeweed and bunch grass are also found in the area. Sediments consist of aeolian fine sand which has a depth of at least two meters. Potable water is available at several seeps and springs found within two miles of the project area. McCracken Spring is located ca. 2½ miles southwest. Elevation of the project area is 5430 feet.

EXAMINATION PROCEDURES

A file and literature review was conducted at the San Juan Resource Area office of the BLM on October 8th, prior to the field examination. None of the well pad area has been previously inventoried, and no significant cultural resources are in the project area. An area 600 x 600' surrounding the well pad center stake, and a 50' wide corridor along the access route were surveyed for

cultural resources. A series of transects spaced 15 meters apart were walked over the entire area examined.

RESULTS

A total of six Anasazi affiliated sherds and a biface tip fragment were found in the vicinity of the well pad. All of the artifacts were widely spaced, and evidently a result of having been washed into the area. No evidence of a site or viable cultural resource was apparent. The walls of a ca. 2m deep arroyo along the south edge of the well pad area was inspected for the presence of possible buried cultural deposits, but none were found. It is unlikely that subsurface cultural resources are present in the project area.

Archeological clearance is recommended for this project.

OPERATOR RAYMOND T DUNCAN DATE 10-22-82

WELL NAME BULLPEN FED 1-14

SEC NESE 14 T 38S R 23E COUNTY SAN JUAN

43-037-30828
API NUMBER

FED
TYPE OF LEASE

POSTING CHECK OFF:

☐ INDEX	✓ HL	☐
☐ NID	✓ PI	☐
✓ MAP	✓	☐

PROCESSING COMMENTS:

NO NEARBY WELLS

KJF ✓

APPROVAL LETTER:

SPACING: ☐ A-3 _____ UNIT ☐ c-3-a _____ CAUSE NO. & DATE

☐ c-3-b ☒ c-3-c

SPECIAL LANGUAGE:

[✓] RECONCILE WELL NAME AND LOCATION ON APD AGAINST SAME DATA ON PLAT MAP.

[✓] AUTHENTICATE LEASE AND OPERATOR INFORMATION FED

[✓] VERIFY ADEQUATE AND PROPER BONDING FED

[✓] AUTHENTICATE IF SITE IS IN A NAMED FIELD, ETC.

[✓] APPLY SPACING CONSIDERATION

- [ ] ORDER ND
- [ ] UNIT NO
- [ ] c-3-b
- [X] c-3-c

[✓] OUTSTANDING OR OVERDUE REPORTS FOR OTHER WELLS OF THE OPERATOR.

[✓] POTASH — 7/10

October 21, 1982

Raymong T. Duncan
e/o Permitco
1020 - 15th Street, Suite 22E
Denver, Colorado 80202

RE: Well No. Bullpen Fed. #1-14
NESE Sec. 14, T. 38S, R. 23E
San Juan County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to oil well on said unorthodox location is hereby granted in accordance with Rule C-3(c), General Rules and Regulations and Rules of Practice and Procedure.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

RONALD J. FIRTH - Engineer Office: 533-5771 Home: 571-6068	OR	CLEON B. FEIGHT - Director Office: 533-5771 Home: 466-4455

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (acquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-037-30828.

Sincerely,

Norman C. Stout
Administrative Assistant

NCS/as
cc: Minerals Management Service
Enclosure

RAYMOND T. DUNCAN
#1-14 BULLPEN FEDERAL
NE SE SECTION 14, T38S, R23E
SAN JUAN CO., UTAH

WELLSITE GEOLOGIST: Jim Holst
INTERMOUNTAIN WELLSITE GEOLOGISTS
P.O. Box 4007
Casper, Wyoming 82604
(307) 266-2009

TABLE OF CONTENTS

WELL DATA

OPERATOR:

Raymond T. Duncan
1777 South Harrison
Penthouse #1
Denver, Colorado 80210
(303) 759-3303

OTHER INTERESTED PARTIES:

Tricentrol U.S.A.
5675 S. Tamarac Pkwy.
Gateway Place #200
Englewood, Colorado 80111
(303) 694-0988

Getty Oil and Gas
1515 Arapahoe St. #700
Denver, Colorado 80202
(303) 623-4200

Skyline Oil Company
University Club Bldg.
Suite #2000
Salt Lake City, Utah 84111
(801) 521-3500

Donald B. Anderson, LTD
Three Park Central #1060
1515 Arapahoe Street
Denver, Colorado 80202
(303) 623-5500

Chorney Oil Company
410 Lincoln Tower
Denver, Colorado 80295
(303) 861-5858

Superior Oil Company
1860 Lincoln
Suite 800
Denver, Colorado 80295
(303) 861-8261

William C. Amor, Jr.
111 W. 2nd Ave. #214
Casper, Wyoming 82601

	Edward J. Vetter 1257 E. 3rd Salt Lake City, Utah 84103
	John E. Oakason Jr. Estate 210 N First National Bank P.O. Box 194 Salt Lake City, Utah 84111
	W. Meeks Wirthlin 231 South 13th E Salt Lake City, Utah 84102
WELL NAME:	#1-14 Bullpen Federal
LOCATION:	NW NE SE Section 14, T38S, R23E 2600' FSL, 850' FEL San Juan County, Utah
FIELD:	Wildcat
ELEVATIONS:	Ground Level: 5426 feet Kelly Bushing: 5439 feet
GEOLOGIST:	Jim Holst Intermountain Wellsite Geologists 4000' - T.D.
MUDLOGGING:	Tooke Engineering Casper, Wyoming 82602 Unit #T-150 Two man logging unit Loggers: Lloyd Kitzmiller Patricia LeJeune
SPUD DATE:	3:30 p.m. November 27, 1982
CEASED DRILLING:	2:05 a.m. December 19, 1982
CONTRACTOR:	Arapahoe Drilling Rig #11 P.O. Box 2078 Farmington, New Mexico 87401 (505) 325-5018
TOOL PUSHER:	Albert Frank and Ed Brown

DRILLERS:	P. Gallegos D.J. Lenocker G. Davis J. Lee
COMPANY MAN:	J.A. "Arkie" Browning P.O. Box 1058 Cortez, Colorado 81321 (303) 565-8806
RIG EQUIPMENT:	Type Drawworks - National T-32 Derrick - 126 feet, 8 lines Pump #1 - Ideal C-250, 15" stroke, 5 1/2" Liner Pump #2 - Ideal C-150, 12" stroke, 5 1/2" Liner Drill Pipe - 4 1/2" 41F X-hole Drill Collars - 6 1/16", 4 1/2 X-hole
DRILLING FLUIDS:	American Mud Company (Released 12/15) P.O. Box 3433 Farmington, New Mexico 87401 (505) 327-4981 Engineer: Ed McDaniel and V. McNeill Mud Type: Salt mud to 6117'; saturated salt to T.D. Drilling Mud, Inc. (Started 12/15) P.O. Box 1179 Cortez, Colorado 81321 (303) 565-6244 Engineer: Don Bryant
SURFACE CASING:	Driller: 114 feet — 13 3/8 inch 2500 feet — 8 5/8 inch Logger: 2502 feet — 8 5/8 inch
TOTAL DEPTH:	Driller: 6376 feet (S.L.M.) Logger: 6382 feet
BOTTOM HOLE TEMPERATURE:	123°F

SAMPLES:	30' Samples, surface to 2500' 10' Samples, 2500' to T.D. Wet cuts sent to Amstrat, Denver, CO 10' Samples dry cut, 2500' to T.D. - sent to Duncan in Denver. Show samples sent to Duncan in Denver.
CORES:	No cores cut
DRILL STEM TEST #1:	No DST in Ismay
DRILL STEM TEST #2:	No DST in Desert Creek
ELECTRICAL LOGS:	Schlumberger Well Services Farmington, New Mexico 87401 (505) 325-5006 Engineer: Tom Link
ELECTRICAL LOGS RUN:	DLL, MSFL (T.D. to 4950'), with GR and CAL Base surface casing to total depth BHC Sonic with GR and CAL Base surface casing to total depth FDC/CNL with GR and CAL Base surface casing to total depth

CHRONOLOGY

November 27, 1982	Rig up. Drill rat hole and mouse hole. Spud well at 3:30 p.m. Drilling 17 1/2 inch hole. Drilled from 0 to 114 feet. Drop survey. Trip out of hole. Ran 3 joints 13 3/8 inch 48.0 lbs. I55 total 116.48 feet set at 114 feet K.B. Cement with 200 sacks Class "B" neat with 2% CaCl. Circulated with good returns.
November 28, 1982	Wait on cement, nipple up. Trip into hole. Drilling 12 1/4 inch hole. Drilled out at 11:30 a.m. Drilled from 114 feet to 568 feet. Drilling ahead.
November 29, 1982	Drilled from 568 feet to 1478 feet. Trip out for new bit #3A HTC (J-22). Trip into hole. Drilled from 1478 feet to 1675 feet. Drilling ahead.
November 30, 1982	Drilled from 1675 feet to 2106 feet. Drop survey. Trip out of hole for new bit #4A STC (F-2). Trip into hole. Drilled from 2106 feet to 2386 feet. Drilling ahead.
December 1, 1982	Drilled from 2386 feet to 2500 feet. Circulate and condition hole. Drop survey. Ran 58 joints 8 5/8 inch 24.0 lbs. I55 casing, total 2513 feet set at 2500 feet K.B. Cement with 1350 sacks BJ Lite followed by 200 sacks Class "B" neat with 2% CaCl. Circulate with good returns. Wait on cement.
December 2, 1982	Wait on cement. Nipple up. Test B.O.P.'s to 3000 lbs. Trip into hole with bit #5. Drilling 7 7/8 inch hole. Drilled plug and cement. Drilled from 2500 feet to 3162 feet. Drilling ahead.
December 3, 1982	Drilled from 3162 feet to 3506 feet. Stuck pipe. Wait on diesel fuel. Spot 82 barrels diesel fuel. Drilled from 3506 feet to 3573 feet. Drilling ahead.
December 4, 1982	Drilled from 3573 feet to 3979 feet. Drilling ahead.

December 5, 1982	Drilled from 3979 feet to 4120 feet. Drop survey. Trip out of hole for new bit #6 HTC (J-33). Wash 20 feet to bottom. Drilled from 4120 feet to 4210 feet. Drilling ahead. Geologist on location.
December 6, 1982	Drilled from 4210 feet to 4444 feet. Drilling ahead.
December 7, 1982	Drilled from 4444 feet to 4593 feet. Drop survey. Trip out for new bit #7 STC (F-2). Drilled from 4593 feet to 4655 feet. Drilling ahead.
December 8, 1982	Drilled from 4655 feet to 4925 feet. Drilling ahead.
December 9, 1982	Drilled from 4925 feet to 5216 feet. Drilling ahead.
December 10, 1982	Drilled from 5216 feet to 5494 feet. Drilling ahead.
December 11, 1982	Drilled from 5494 feet to 5636 feet. Drop survey. Trip for bit #8 STC (F-3). Drilled from 5636 feet to 5673 feet. Drilling ahead.
December 12, 1982	Drilled from 5673 feet to 5848 feet. Drilling ahead.
December 13, 1982	Drilled from 5848 feet to 5980 feet. Drilling ahead.
December 14, 1982	Drilled from 5980 feet to 6073 feet. Drilling ahead.
December 15, 1982	Drilled from 6073 feet to 6117 feet. Circulate and condition mud. Trip out of hole to check bit. Trip in 26 stands. Circulate and condition mud.
December 16, 1982	Circulate and condition mud. Trip out of hole to surface casing. Clean pits, wait on mud. Trip into hole. Displace mud in hole. Mix and condition mud.

December 17, 1982	Mix and condition mud. Drilled from 6118 feet to 6236 feet. Drilling ahead.
December 18, 1982	Drilled from 6236 feet to 6327 feet. Circulate bottoms up to look at samples. Drilled from 6327 feet to 6354 feet. Drilling ahead.
December 19, 1982	Drilled from 6354 feet to 6375 feet. Circulate to run electrical logs. Drop survey. Trip out of hole to run logs. Rig up E-loggers. Run E-logs. S.L.M. depth 6376.15 electrical log depth 6382 feet.
December 20, 1982	Wait on orders, decided to plug and abandon location. Geologist released. Plugs set at 5950 feet to 6150 feet, 4700 feet to 4900 feet, 2400 feet to 2600 feet and a 200 sack plug at the surface.

DAILY DRILLING SUMMARY

DATE	DEPTH	DSS	WT	VISC	PH	API WATER LOSS	FC	PPM CHLORIDES	PPM CALCIUM	% SOLIDS	R.P.M. ROTARY	WT. ON BIT 1000 LBS.	PUMP PRESSURE
11/27/82						SPUD MUD							
11/28/82		1				WATER					70	25/33	700/800
11/29/82		2				NO REPORT					70	35/40	900/800
11/30/82	1900	3	8.8	32		WATER					70	40	600/500
12/1/82	2490	4	9.0	35	10.0	20+	2/32	500	120	5	70	40	600
12/2/82	2514	5	8.8	28	11.0	WATER		55000	6800		60	35	1000
12/3/82	3341	6	9.6	28	9.5	WATER		56000	8040		60	40	1000
12/4/82	3656	7	9.4	36	10.5	19.2	3/32	72000	8000	10	60	40	1000
12/5/82	4056	8	9.6	33	10.0	28.2	3/32	72000	8400	11	60	40	1000
12/6/82	4250	9	9.7	34	11.5	12.8	2/32	70000	8000	5	60	40	1000
12/7/82	4500	10	9.4	33	10.5	8.0	3/32	72000	6560	5	60	40	1000
12/8/82	4712	11	9.8	33	11.0	17.6	3/32	73000	5400	5.5	60	40	1000
12/9/82	4978	12	9.6	33	11.0	N/C	3/32	75000	1360	5	60	40	1000
12/10/82	5284	13	9.6	34	11.0	N/C	3/32	72000	2920	5	60	40	1000
12/11/82	5548	14	9.4	34	10.5	N/C	3/32	76000	5000	5	60	40	1000

DATE	DEPTH	DSS	WT	VISC	PH	API WATER LOSS	FC	PPM CHLORIDES	PPM CALCIUM	% SOLIDS	R.P.M. ROTARY	WT. ON BIT 1000 LBS.	PUMP PRESSURE
12/12/82	5711	15	9.5	36	10.0	22.4	3/32	76000	5400	5	60	40	1000
12/13/82	5880	16	9.5	40	7.0	13.6	3/32	76000	6400	5	60	40	250/700
12/14/82	6006	17	10.5	37	11.0	69.0	1/8	77000	12000	5	60	40	250/700
12/15/82	6103	18	10.0	42	10.0	8.0	2/32	72000	12000	8	60	40	250/700
12/16/82	6118	19	10.4	37	9.5	15.2	1/32	72000	6400	12	60	40	1000
12/17/82	6147	20	9.5	67	8.5	16.4	2/32	215000	10200	13	60	40	1000
12/18/82	6264	21	11.2	52	8.5	35.2	2/32	217000	6300	12.5	60	40	1000
12/19/82	6375	22	10.9	63	8.5	18.2	2/32	219000	6800	11.5 - - TOTAL DEPTH - - - -			
12/20/82	6376	23	- - - - - - - - - FINISH E-LOGS - WAIT ON ORDERS -										

BIT RECORD

BIT #	SIZE	MAKE	TYPE	DEPTH OUT	FOOTAGE	HOURS	AVE. FT/HR
1A	17 1/2	HTC	OSC1G	114	114	5	22.8
2A	12 1/4	HTC	J-22	1478	1364	29 3/4	45.8
3A	12 1/4	HTC	J-22	2106	628	12	52.3
4A	12 1/4	STC	F-2	2500	394	18 1/4	21.6
5	7 7/8	STC	F-3	4120	1620	68	23.8
6	7 7/8	HTC	J-33	4593	473	47	10.1
7	7 7/8	STC	F-2	5636	1043	90 3/4	11.5
8	7 7/8	STC	F-3	6375	739	111 1/2	6.6

DEVIATION RECORD

DATE	DEPTH	DEGREES
11/27/82	112	1/4°
11/28/82	537	1/4°
11/29/82	1478	1/2°
12/1/82	2500	1°
12/2/82	3043	3/4°
12/3/82	3506	1°
12/5/82	4120	1 1/2°
12/7/82	4593	1 3/4°
12/11/82	5512	1 3/4°
12/11/82	5636	1 1/2°
12/19/82	6375	1 1/2°

FORMATION TOPS
K.B. = 5439 FT.

FORMATION	SAMPLE TOP	E-LOG TOP	SUBSEA
PENNSYLVANIAN			
Hermosa	4798'	4805'	-634
Upper Ismay	6024'	6000'	-561
Lower Ismay	6142'	6135'	-696
Gothic Shale	6205'	6197'	-758
Desert Creek	6242'	6231'	-792
Lower Desert Creek	6300'	6295'	-856
Chimney Rock	6319'	6315'	-876
T.D.	6375'	6382'	-943

E-LOG COMPARISONS

	RAYMOND T. DUNCAN #1-14 BULLPEN FED. NW NE SE SEC. 14 T38S, R23E G.L. 5426' K.B. 5439'	SKELLY OIL CO. R.J. PARKS #1 SEC. 19 T38S, R24E G.L. - K.B. 5257'	HALBERT & JENNINGS L.N. HAYGOOD GOV'T. #1 C NW NW SEC. 15 T38S, R23E G.L. 5447' K.B. 5454'
FORMATION	SUBSEA DEPTH	SUBSEA DEPTH	SUBSEA DEPTH
PENNSYLVANIAN			
Hermosa	-634		
Upper Ismay	-561	-611	-613
Lower Ismay	-696	-723	-743
Gothic Shale	-758	-788	-786
Desert Creek	-792	-825	-830
Lower Desert Creek	-856	-883	-880
Chimney Rock	-876	-901	-902
T.D.	-943	-977	-973

COMMENTS: The calculated values always assumed a constant bulk fluid density of 1.16 gr/cc. A resistivity value (Rw) of 0.035 was used for all calculations. A limestone matrix was used on CNP and a grain density of 2.71 was used on FDC.

DRILL STEM TEST DATA

Drill Stem Test #1: No test was run in Ismay.

Drill Stem Test #2: No test was run in Desert Creek.

LITHOLOGY

4000-4250	Shale - red, greenish gray, brick red, orange, soft to moderately firm, calcareous, silty, scattered slightly limy, slightly micaceous; interbedded sandstone - white, light gray, fine grained, sub-angular, tight, calcareous; scattered siltstone - red, brick red, shaly in part, blocky, calcareous; scattered anhydrite; traces of scattered limestone - red, gray, light pink, cryptocrystalline, shaly to scattered slightly silty in part; traces of grayish-green soft bentonite; traces of scattered brown chert.
4250-4300	Shale - red, orange, scattered greenish gray, blocky, scattered silty in part, scattered micaceous in part, calcareous, micaceous; sandstone - white, light gray, scattered light pink, fine grained to very fine grained, scattered medium grained, subangular to scattered sub-rounded, calcareous, predominantly well sorted, scattered moderately sorted, tight, no visible porosity, no stain; scattered gray to reddish brown chert; scattered slightly anhydrite; scattered limestone - gray, reddish gray, light pink, cryptocrystalline, firm, slightly shaly to silty in part.
4300-4320	Sandstone - white, light gray, light pink, very fine grained to fine grained, scattered medium grained, subangular to angular, poor to moderately sorted, calcareous, tight; shale - red, orange, greenish-gray, brick red, blocky, slightly silty to slightly sandy in part, calcareous; scattered chert, slightly anhydritic in part; scattered limestone - light gray, light pink, cryptocrystalline, firm.
4320-4350	Shale - red, orange, greenish-gray, blocky, slightly silty to scattered slightly sandy in part, soft to moderately firm, calcareous; limestone - light gray, light pink, cryptocrystalline, firm; scattered chert, slightly anhydritic.
4350-4480	Shale - red, brick red, orange, grayish-green, dark purple, blocky, soft, scattered moderately firm, calcareous, silty in part, with sandstone - red, blocky, soft to moderately firm, slightly sandy to shaly in part, calcareous, micaceous in part; scattered limestone - pink, gray, cryptocrystalline, firm, no porosity; scattered sandstone - red, light gray, scattered white, fine grained to scattered medium grained, scattered very fine grained, subangular, poor to moderately sorted, calcareous, tight, no porosity, micaceous.

Walter Duncan OIL PROPERTIES

1777 SOUTH HARRISON STREET • PENTHOUSE ONE
TELEPHONE (303) 759-3303 • DENVER, COLORADO 80210

October 6, 1983

State of Utah
Oil Gas & Mining Division
4241 State Office Building
Salt Lake City, UT 84114

ATTN: Cari Furse
Well Records Specialist

RE: Bullpen Federal 1-14
NE SE 14, 38S-23E
San Juan Co., UT

Dear Ms. Furse:

Per your request of September 30, 1983, the following documents are enclosed:

Form 9-329 (USGS) Notification of Spud Date (2 copies)
Daily Drilling Log (2 copies)
Form 9-331 Sundry Notice, Request to Plug well (2 copies)
Form 9-331 Sundry Notice, Subsequent Report of Plugging (2 copies)
Form 9-329 (USGS) Notification of Plug Date (2 copies)

Please acknowledge your receipt of these documents by signing the copy of this letter attached hereto.

Very truly yours,
RAYMOND T. DUNCAN

John W. Lowry
District Drilling and Production Supt.

cl
Encl.

RECEIVED THIS 11th DAY OF October, 1983

BY: Arlene Sollis

For State of Utah, Oil, Gas & Mining Division

12-21-82 6375', T.D. P & A. MW 11.0, VIS 55, WL 15.0.

Log Tops:

Hermosa	4805'
Upper Ismay	6000'
Lower Ismay	6135'
Gothic Shale	6197'
Desert Creek	6231'
Lower Desert Creek	6295'
Chimney Rock	6315'
LTD	6382'

Obtained verbal approval from E. W. Gunn, Minerals Management Service, Salt Lake City, Utah @ 3:45 p.m. 12-19-82.
Plugs were set as follows:

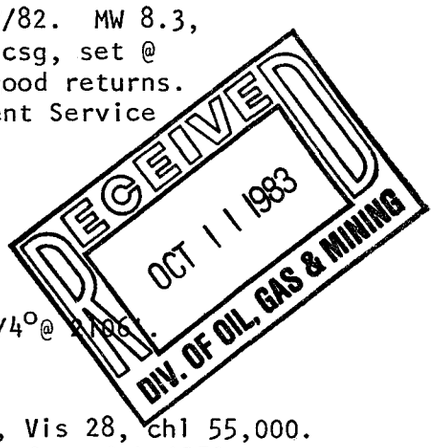
60 sxs	6350-6150'
60 sxs	5050-4850'
60 sxs	2600-2400'
35 sxs	114' - surface

Used a total of 215 sxs Class "B" cmt neat.

Job complete @ 7:00 p.m. 12-20-82. Released Rig @ 12:00 midnight 12-20-82.

FINAL REPORT - D & A.

#1-14 BULLPEN FEDERAL
NE SE SECTION 14-38S-23E
SAN JUAN COUNTY, UTAH



11-28-82 114', WOC. NU 13-3/8" csg. Spud @ 3:30 p.m. 11/27/82. MW 8.3, VIS 28. Survey: ¼°@ 114'. Ran 3 jts 13-3/8" 48# csg, set @ 114'. Cmt'd with 200 sxs Class "B" with 2% CaCl, good returns. PD @ 11:30 p.m. 11-27-82. Called Minerals Management Service with spud notification 11/27/82.

11-29-82 814', drlg. MW 8.4, VIS 28. Survey: ¼°@ 537'.

11-30-82 1954', drlg. MW 8.8, VIS 32.

12-1-82 2495', drlg. MW 9.0, VIS 42, pH 10.0. Survey: 3/4°@ 2405'. Sample Top Chinle 2124'.

12-2-82 Drlg. 2530'. Set 8 5/8" csg. @ 2500' KB. MW 8.8, Vis 28, chl 55,000. Ran 58 jts. 8 5/8" 24# J-55 STC csg., set @ 2500'. Cmt with 1350 sxs BJ lite, tail in w/200 sxs Class "B" w/2% CaCl. Had good returns, bump plug w/1500 psi, held ok. Job complete 3 P.M. 12-1-82.

12-3-82 3360', drlg. MW 9.6, Vis 28, Survey 3/4° @ 3043'.

12-4-82 3680', drlg. MW 9.4, Vis 36, WL 19, Chl 72,000, Survey 1° @ 3506'. Stuck drill collars at 3506', 7 hrs., spotted 3500 gal diesel to free pipe.

12-5-82 4070', drlg. MW 9.6, Vis 33, WL 28.2, Chl 72,000.

12-6-82 4260', drlg. MW 9.7, Vis 34, WL 12.8, chl 70,000, pH 11.5, Survey 1½° @ 4100'. Trip for bit # 6. Mud loggers on location.

12-7-82 4510', drlg. MW 9.4, Vis 33, WL 8.0, chl 72,000.

12-8-82 4722', drlg. MW 9.8, Vis 33, WL 18, pH 11, chl 73,000, Survey 1 3/4° @ 4593'. Trip for bit # 7.

12-9-82 5002'. drlg. MW 9.6, Vis 33, WL 40, chl 75,000.

12-10-82 5286', drlg. MW 9.6, Vis 34, WL 40, pH 11. Top Hermosa Formation 4798'

12-11-82 5560', Drlg. MW 9.4, Vis 37, WL 40, pH 10.5, Survey 1 3/4° @ 5512'.

12-12-82 5721', drlg. MW 9.5, Vis 36, WL 22.4, pH 10, Survey 1½° @ 5636', Trip for bit # 8. Having problems with air in mud system.

12-13-82 5882', drlg. MW 9.5, Vis 40, WL 13.6, pH 10. Circ ½ hr. to condition mud.

12-14-82 6019', drlg. MW 10.5, VIS 37, WL 69.6, Chlorides 77,000 ppm, pH 11.0. Circulated 2 hrs. to condition hole.
Sample Top Ismay 6016', 4' high to prognosis.

12-15-82 6107', drlg. MW 10.0, VIS 42, WL 8.0, pH 10.0. Circulated and conditioned mud 8½ hrs. Had drilling break 6077' - 2', 60 units gas, no show. Drilling break 6084' - 2', no gas, no show.

12-16-82 6118', circulating to condition mud. MW 10.4, VIS 37, WL 15.2, pH 9.5, Chlorides 70,000 ppm. Changed mud companies at 3:00 p.m. 12-15-82. Made trip to wipe hole.

12-17-82 6118', circulate to change out mud system. MW 10.2, VIS 70, WL 60.0, pH 8.5. 2½ hrs. changed over mud system to salt saturated system. Made short trip to wipe hole. Resume drilling @ 8:00 a.m. 10-17-82.

12-18-82 6261', drlg. MW 11.2, VIS 52, WL 14.2. Down 1¼ hrs. to repair swivel.

12-19-82 6375', T.D. Trip for logs. MW 11.0, VIS 60, WL 16.0. Survey: 1½°@ 6375'. Reached T.D. 12:30 a.m.

12-20-82 6375', DTD. LTD 6382'. Prep to P & A. MW 11.0, VIS 60, WL 16.0. Ran logs. WOO to P & A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Form 9-329 Rev. Feb 76
OMB 42-R0356

MONTHLY REPORT OF OPERATIONS

Lease No. U-20894 (1-14 Bullpen Fed.)
Communitization Agreement No.
Field Name Wildcat
Unit Name
Participating Area
County San Juan State UT
Operator Raymond T. Duncan

☐ Amended Report

The following is a correct report of operations and production (including status of all unplugged wells) for the month of November, 19 82

(See Reverse of Form for Instructions)

This report is required by law (30 U.S.C. 189, 30 U.S.C. 359, 25 U.S.C. 396 d), regulation (30 CFR 221.60), and the terms of the lease. Failure to report can result in the assessment of liquidated damages (30 CFR 221.54 (j)), shutting down operations, or basis for recommendation to cancel the lease and forfeit the bond (30 CFR 221.53).

Well No.	Sec. & ¼ of ¼	TWP	RNG	Well Status	Days Prod.	*Barrels of Oil	*MCF of Gas	*Barrels of Water	Remarks
1-14	NWNE 14	38	23	DRLG	0	0	0	0	Spud 11/27/82

RECEIVED
OCT 11 1983
DIV. OF OIL, GAS & MINING

*If none, so state.

Disposition of production (Lease, Participating Area, or Communitized Area basis)

	Oil & Condensate (BBLS)	Gas (MCF)	Water (BBLS)
*On hand, Start of Month		XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX
*Produced			
*Sold			XXXXXXXXXXXXXXXXX
*Spilled or Lost		XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX
*Flared or Vented	XXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXX
*Used on Lease			XXXXXXXXXXXXXXXXX
*Injected			
*Surface Pits	XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	
*Other (Identify)			
*On hand, End of Month		XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX
*API Gravity/BTU Content			XXXXXXXXXXXXXXXXX

Authorized Signature: John W Lowry
Title: Dist. Drlg. & Prod. Supt.

Address: 1777 So. Harrison, P-1
Denver, CO 80210

Well File

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Form 9-329 Rev. Feb 76
OMB 42-R0356

MONTHLY REPORT
OF
OPERATIONS

Lease No. U-20894 Bullpen Federal 1-14
Communitization Agreement No.
Field Name Wildcat
Unit Name
Participating Area
County San Juan State Utah
Operator Raymond T. Duncan

☐ Amended Report

The following is a correct report of operations and production (including status of all unplugged wells) for the month of December, 19 82

(See Reverse of Form for Instructions)

This report is required by law (30 U.S.C. 189, 30 U.S.C. 359, 25 U.S.C. 396 d), regulation (30 CFR 221.60), and the terms of the lease. Failure to report can result in the assessment of liquidated damages (30 CFR 221.54 (j)), shutting down operations, or basis for recommendation to cancel the lease and forfeit the bond (30 CFR 221.53).

Well No.	Sec. & ¼ of ¼	TWP	RNG	Well Status	Days Prod.	*Barrels of Oil	*MCF of Gas	*Barrels of Water	Remarks
1-14	14	38S	23E	D&A	--				Plugged 12/21

RECEIVED
OCT 11 1983
DIV. OF OIL, GAS & MINING

*If none, so state.

Disposition of production (Lease, Participating Area, or Communitized Area basis)

	Oil & Condensate (BBLS)	Gas (MCF)	Water (BBLS)
*On hand, Start of Month		XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX
*Produced			
*Sold			XXXXXXXXXXXXXXXXX
*Spilled or Lost		XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX
*Flared or Vented	XXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXX
*Used on Lease			XXXXXXXXXXXXXXXXX
*Injected			
*Surface Pits	XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	
*Other (Identify)			
*On hand, End of Month		XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX
*API Gravity/BTU Content			XXXXXXXXXXXXXXXXX

Authorized Signature: John W Lowry
John W. Lowry

Title: Dist. Drlg. & Prod. Supt.

Address: 1777 So. Harrison, P-1
Denver, CO 80210

Page ____ of ____

Form 9–331
Dec. 1973

DEC 30 1982

Form Approved.
Budget Bureau No. 42–R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9–331–C for such proposals.)

1. oil well ☐ gas well ☐ other DRY HOLE
2. NAME OF OPERATOR
Raymond T. Duncan
3. ADDRESS OF OPERATOR
1777 So. Harrison, P-1, Denver, CO 80210
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1600' FSL; 850' FEL
AT TOP PROD. INTERVAL: same
AT TOTAL DEPTH:

5. LEASE
U-20894
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME
Bullpen Federal
9. WELL NO.
1-14
10. FIELD OR WILDCAT NAME
Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 14-38S-23E
12. COUNTY OR PARISH
San Juan
13. STATE
UT
14. API NO.
15. ELEVATIONS (SHOW DF, KDB, AND WD)
5426' GR

RECEIVED
DEC 22 1982
SALT LAKE CITY, UTAH

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	☐	☐
FRACTURE TREAT	☐	☐
SHOOT OR ACIDIZE	☐	☐
REPAIR WELL	☐	☐
PULL OR ALTER CASING	☐	☐
MULTIPLE COMPLETE	☐	☐
CHANGE ZONES	☐	☐
ABANDON* Plug	☒	☐
(other)		

RECEIVED
OCT 11 1983
DIV. OF OIL, GAS & MINING

(NOTE: Report results of multiple completion or zone changes on Form 9–330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Propose to plug captioned well in following manner:

Set plugs as follows:

6350 - 6150	60 sx.
5050 - 4850	60 sx.
2600 - 2400	60 sx.
114 - surface	35 sx.

Use total of 215 sx. Class"B" Cement.

TD 6375'. Verbal approval obtained from E.W. Guynn, Dist. Supervisor Minerals Management Service Salt Lake City, UT @ 3:45 PM, 12/19/82

Log Tops:

4805	Hermosa
6000	Upper Ismay
6135	Lower Ismay
6197	Gothic Shale
6231	Desert Creek
6295	Lower Desert Creek
6315	Chimney Rock
6382	Loggers TD

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED John W Lowry TITLE Dist. Drlg & Prod. Supt. DATE 12/21/82
John W. Lowry

(This space for Federal or State office use)

APPROVED BY _____ TITLE E. W. Guynn District Oil & Gas Supervisor DEC 27 1982
CONDITIONS OF APPROVAL, IF ANY:

oper.

*See Instructions on Reverse Side

Form 9–331
Dec. 1973

Form Approved.
Budget Bureau No. 42–R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9–331–C for such proposals.)

1. oil well ☐ gas well ☐ other DRY HOLE
2. NAME OF OPERATOR
Raymond T. Duncan
3. ADDRESS OF OPERATOR
1777 So. Harrison, P-1, Denver, CO 80210
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1600' FSL; 850' FEL
AT TOP PROD. INTERVAL: same
AT TOTAL DEPTH:

5. LEASE
U-20894
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME
Bullpen Federal
9. WELL NO.
1-14
10. FIELD OR WILDCAT NAME
Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 14-38S-23E
12. COUNTY OR PARISH
San Juan
13. STATE
UT
14. API NO.
15. ELEVATIONS (SHOW DF, KDB, AND WD)
5426' GR

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	☐		☐
FRACTURE TREAT	☐		☐
SHOOT OR ACIDIZE	☐		☐
REPAIR WELL	☐		☐
PULL OR ALTER CASING	☐		☐
MULTIPLE COMPLETE	☐		☐
CHANGE ZONES	☐		☐
ABANDON* Plug	☐		☒
(other)			

(NOTE: Report results of multiple completion or zone change on Form 9–330.)

RECEIVED
OCT 1983
DIV. OF OIL, GAS & MINING

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Captioned well was plugged as follows:

Set plugs:	6350 - 6150	60 sx.
	5050 - 4850	60 sx.
	2600 - 2400	60 sx.
	114 - surface	35 sx.

A total of 215 sx. cement, Class "B" was used. Job was complete @ 7:00 PM, 12/20/82. Released Rig @ 12:00 Midnight, 12/20/82.

Log Tops:
4805' - Hermosa
6000' - Upper Ismay
6135' - Lower Ismay
6197' - Gothic Shale
6231' - Desert Creek
6295' - Lower Desert Creek
6315' - Chimney Rock
6382' - Loggers TD

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED John W Lowry TITLE Dist. Drlg & Prod. Supt. DATE 12/21/82
John W. Lowry

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

FORMATION TOPS
K.B. = 5439 FT.

FORMATION	SAMPLE TOP	E-LOG TOP	SUBSEA
PENNSYLVANIAN			
Hermosa	4798'	4805'	-634
Upper Ismay	6024'	6000'	-561
Lower Ismay	6142'	6135'	-696
Gothic Shale	6205'	6197'	-758
Desert Creek	6242'	6231'	-792
Lower Desert Creek	6300'	6295'	-856
Chimney Rock	6319'	6315'	-876
T.D.	6375'	6382'	-943

LOG CALCULATIONS

FORMATION	DEPTH	ØN	ØD	ØS	AVE. Ø	F / (Ø²)	Rt	Rwa Rt / (F)	Rw	Ro (FRw)	% Sw
Upper Ismay	6011	.01	.02	.04	.023	1890	600	.318	.035	66.15	33
	6035	.02	.04	.06	.04	625	110	.176	.035	21.88	45
	6094	.13	.02	.065	.072	193	20	.104	.035	6.75	58
	6098	.11	.01	.065	.062	260	50	.192	.035	9.1	43
	6118	.175	.045	.07	.097	106	7	.06	.035	3.7	73
Lower Ismay	6187	.015	.015	.03	.02	2500	50	.02	.035	87.5	100
	6194	.01	.01	.02	.013	5917	195	.033	.035	207.0	100
Upper Desert Creek	6235	.03	.03	.05	.037	730	275	.38	.035	25.6	31
	6240	.18	.085	.12	.128	61	75	1.23	.035	2.14	17
	6263	.06	.03	.065	.052	370	60	.16	.035	12.9	46
	6267	.03	.025	.05	.035	816	150	.18	.035	28.6	44
	6271	.05	.03	.08	.053	356	70	.19	.035	12.5	42
	6277	.09	.035	.08	.068	216	40	.05	.035	7.6	44
	6284	.06	.01	.07	.047	453	32	.07	.035	15.8	70
Lower Desert Creek	6298	.085	.02	.08	.062	260	26	.1	.035	9.1	59
	6304	.045	.035	.10	.06	278	20	.07	.035	9.7	70
	6307	.055	.045	.075	.058	297	25	.08	.035	10.4	65

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Dr. G. A. (Jim) Shirazi, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

September 30, 1983

Raymond T. Duncan
c/o Permitco
1020 - 15th Street, Suite # 22E
Denver, Colorado 80202

Re: Well No. Bullpen Federal # 1-14
2600' FSL, 850' FEL
NE SE, Sec. 14, T. 38S, R. 23E.
San Juan County, Utah

Gentlemen:

This office has received logs on the above referred to well. Receiving these lets this office know that this well has been drilled; however, this office has not received any notification of spudding or the required monthly drilling reports on the above subject well.

Rule C-22, General Rules and Regulations and Rules of Practice and Procedure, requires that said reports be filed on or before the sixteenth (16) day of the succeeding month. This report may be filed on Form OGC-1B, or on company forms containing substantially the same information. We are enclosing forms for your convenience.

We will be happy to acknowledge receipt of response to this notice if you will include an extra copy of the transmittal letter with a place for our signature, and a self addressed envelope for the return. Such acknowledgement should avoid unnecessary mailing of a second notice from our agency.

Your prompt attention to the above matter will be greatly appreciated.

Respectfully,

DIVISION OF OIL, GAS AND MINING

Cari Furse

Cari Furse
Well Records Specialist

CF/cf
Enclosure

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Dr. G. A. (Jim) Shirazi, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

October 13, 1983

Raymond T. Duncan
c/o Permitco
Att: John W. Lowry
1020 - 15th Street, Suite # 22E
Denver, Colorado 80202

Re: Well No. Bullpen Federal # 1-14
2600' FSL, 850' FEL
NE SE, Sec. 14, T. 38S, R. 23E.
San Juan County, Utah

Dear Mr. Lowry:

Thank you for your recent submittal of the Sundry Notices stating that this well was plugged and abandoned. For office record purposes we need to have you submit one other form, please.

This letter is to remind you that the Well Completion or Recompletion Report and Log for the above mentioned well is due and has not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3, in duplicate, and forward them to this office as soon as possible.

We will be happy to acknowledge receipt of response to this notice if you will include an extra copy of the transmittal letter with a place for our signature, and a self addressed envelope for the return. Such acknowledgement should avoid unnecessary mailing of a second notice from our agency.

Your prompt attention to the above will be greatly appreciated.

Respectfully,

DIVISION OF OIL, GAS AND MINING

Cari Furse

Cari Furse
Well Records Specialist

CF/cf
Enclosure

Form OGC-3

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN DUPLICATE*
(See other instructions on reverse side)

RECEIVED
OCT 28 1983
DIV. OF OIL, GAS & MINING

56 64 01 3 9

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: U-20894
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
7. UNIT AGREEMENT NAME: N/A
8. FARM OR LEASE NAME: Bullpen Federal
9. WELL NO.: 1-14
10. FIELD AND POOL, OR WILDCAT: Wildcat
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 14-38S-23E

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☒ Other
b. TYPE OF COMPLETION: NEW WELL ☐ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other D & A'd

2. NAME OF OPERATOR: Raymond T. Duncan

3. ADDRESS OF OPERATOR: 1777 So. Harrison, P-1 Denver, CO 80210

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 1600' FSL: 850' FEL (2600) NESE
At top prod. interval reported below: same
At total depth:

14. PERMIT NO.: 43-037-30828 DATE ISSUED:
12. COUNTY OR PARISH: San Juan
13. STATE: UT

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
11/27/82	12/19/82	N/A	5426' GR	5426'

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
6375'	6375'	N/A	→	0-6375'	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
N/A Please refer to Sundry Notices for Plugging Operations.

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN
Compensated Neutron Formation Density; Cyberlook; Dual Laterolog

27. WAS WELL CORED: No

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8	48#	114'	12¼	200 sx Class B	
8 5/8	24#	2500'	7 7/8	1550 sx Class B	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (*Interval, size and number*)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
N/A		P & A'd

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)
TEST WITNESSED BY

35. LIST OF ATTACHMENTS
Geological Report ✓

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED John W. Lowry TITLE Dist. Drlg & Prod. Supt. DATE 10/25/83
John W. Lowry

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

OCT 19 68

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
			PLEASE REFER TO ATTACHED GEOLOGICAL REPORT
			PLEASE REFER TO SUNDRY NOTICES FOR PLUGGING OPERATIONS

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH

Dupe

ABBREVIATED LITHOLOGY

4000-4250	Sh - rd, gn-gy, brick rd, orng, sft to mod frm, calc, slty, scat sl lmy, sl mica, intbd ss - wh, lt gy, f gr, subang, tt, calc, scat sltst - rd, brick rd, shly in pt, blky, calc, scat anhy, tr scat ls - rd, gy, lt pink, crpxln, shly to scat sl slty in pt, tr gy-gn, sft bent, tr scat brn chrt.
4250-4300	Sh - rd, orng, scat gn-gy, blky, scat slty in pt, scat mica in pt, calc, mica, ss - wh, lt gy, scat lt pink, f gr to v f gr, scat m gr, subang to scat subrnd, calc, pred w srtd scat mod srtd, tt, no vis por, no stn, scat gy to rd brn chrt, scat sl anhy, scat ls - gy, rd, gy, lt pink, crpxln, frm, sl shly to slty in pt.
4300-4320	Ss - wh, lt, gy, lt pink, v f gr to f gr, scat m gr, subang to ang, p to mod srtd, calc, tt, sh - rd, orng, gn-gy, brick rd, blky, sl slty to sl sdy in pt, calc, scat chrt, sl anhy in pt, scat ls - lt gy, lt pink, crpxln, frm.
4320-4350	Sh - rd, orng, gn-gy, blky, sl slty to scat sl sdy in pt, sft to mod frm calc, ls - lt gy, lt pink, crpxln frm, scat cht, sl anhy.
4350-4480	Sh - rd, brick rd, orng, gy-gn, dk purp, blky, sft scat mod frm, calc, slty in pt with sltst - rd, blky sft to mod frm, sl sdy to shly in pt, calc, mica in pt, scat ls - pink, gy, crpxln, frm, no por, scat ss - rd, lt gy, scat wh, f gr to scat m gr, scat v f gr, subang, p to mod srtd, calc tt, no por, mica.
4480-4520	Sh - gy to scat blk, gy-gn, scat rd, blky, sft, sl carb in pt, calc, scat slty in pt, scat ls - brn, gy, scat pink, crpxln, dns, frm, scat chrt, ss - lt gy, lt gn-gy, scat rd, v f gr to m gr, p to mod srtd subang, calc tt, scat anhy.
4520-4550	Ss - wh, lt gy, lt pink, f gr to m gr, scat v f gr, subang to ang, p to mod srtd, tt, dns, mica, sh - rd, orng, purp, dk lav, gy-gn, brn, scat dk brn, blky, sft to mod frm, calc, mica, slty in pt, scat anhy in pt.
4550-4610	Sh - dk brn, dk rd-brn, dk gy-brn, blky, scat sl slty in pt, scat sl bent, scat mica, tr scat cht - brn, dk brn, sltst - rd, brn, blky, calc, sft to mod frm.

4610-4650	Ss - wh, lt gy, rd, pred v f gr to f gr, calc, tt, subang to ang, p to scat mod srtd, sl anhy to cly fill, sh - dk rd-brn, blky calc, slty in pt, mica in pt, scat anhy in pt, tr scat ls - gy, lt pink, brn, crpxln, dns, shly in pt.
4650-4680	Sh - brn, rd, brn-rd, blky to sl plty, sft to mod frm, calc, scat slty in pt, scat anhy in pt, scat ss - wh, lt gy, f gr to v f gr, sugang, calc p to mod srtd.
4680-4720	Sh - gn, blky, sft, bent, wxy, scat sl slty to sdy in pt, mica in pt, scat ls - gy, brn-gy, crpxln, dns, no por.
4720-4730	Sh - dk brn, dk rd, gn, gy-gn, gy, blky to scat plty, sft to mod frm, sl slty in pt, calc in pt, scat ss - gy, lt gy, wh, lt rd, v f gr to f gr, scat m gr, calc, p to mod srtd, subang.
4730-4800	Sh - rd, orng, dk rd, dk brn, blky to scat plty in pt, calc in pt, scat slty in pt, mica in pt, scat anhy in pt, ss - lt gy, wh, lt brn, subang, calc, p to mod srtd, tt, f gr, scat m gr, scat ls - brn, gy, crpxln, dns, no por.
4800-4830	Ls - lt gy, lt brn-gy, crpxln, dns, sl arg in pt, mod frm, no vis por, no stn, no cut.
4830-4860	Sltst - rd, rd-gy, blky, shly in pt, sft to mod frm, calc, sh - rd, rd-brn, brn, blky, calc in pt, slty in pt, scat mica in pt.
4860-4880	Ls - lt brn, lt gy, crm, lt brn-gy, crpxln, dns, scat arg in pt, no vis por, ss - lt gy, gy, wh, crm, cly fill, f gr, calc, subang, p srtd, mica, slty in pt.
4880-4890	Coal - blk, vit w ls - lt brn, crm, lt gy, lt brn-gy, crpxln, dns, scat arg in pt, slty in pt to sdy in pt.
4890-4920	Ls - lt brn, gy, lt gy, brn-gy, crm, dns, crpxln, arg in pt, no vis por, slty to scat sl sdy in pt, sh - gy, rd, rd-gy, blky to sl plty, sft to mod frm, calc to scat lmy in pt.
4920-4940	Sh - gy, scat dk gy, plty to blky, mod frm, calc to sl lmy in pt, sl slty in pt, carb in pt, ls - brn, lt brn, gy, lt gy, brn-gy, dns, crpxln, no vis por, scat sl arg.
4940-4960	Ls - brn, dk brn, crm, lt gy, gy, dns, crpxln, scat sl arg, no por, sh - gy, dk gy, plty to blky, calc to sl lmy in pt, mod frm.

4960-4980	Ls - crm, lt gy, wh, chlky to arg, crpxln, sh - lt gy, sft, blky, calc to sl lmy in pt.
4980-5010	Sh - brn, dk brn, gy, rd-brn, plty to blky in pt, mod frm, scat frm, calc to scat sl calc, slty in pt, ls - brn, gy, brn-gy, dns, crpxln, frm, no vis por, scat arg in pt.
5010-5030	Ls - lt brn, wh, crm, lt gy, lt brn-gy, crpxln to scat micxln, dns, sl arg in pt, scat chlky, sl frag in pt, slty to sdy in pt, tr scat vis por, no stn, no cut, tr scat fos.
5030-5040	Sh - rd, brn, gy, plty to blky, sft to mod frm, sl calc to scat sl lmy in pt, slty in pt.
5040-5050	Ls - lt brn, wh, crm, lt brn-gy, crpxln to sl micxln, dns, sl arg in pt, scat sl anhy, no vis por, no stn, no cut.
5050-5060	Sh - gy, dk gy, dk brn, plty to blky, sft to mod frm, carb in pt, ss - lt gy, gy, wh, m gr to f gr, p srtd, subang to ang, tt.
5060-5100	Ls - brn, gy, gy-brn, lt gy, crpxln, scat chlky, scat sl arg in pt, mod frm, scat sft, dns, no vis por, Sh - gy, dk gy, dk brn, scat rd, blky to plty, sft to mod frm, calc to sl calc scat blk carb sh.
5100-5150	Ls - lt gy, lt brn, lt brn-gy, crpxln to scat micxln, dns, arg in pt, chlky in pt, sft to mod frm, no vis por, no stn, no h-c flor, no cut, scat sl frag, intbd scat sh - gy, dk gy, gn-gy, plty to blky, subwxy, sft to scat sl mod frm, calc to sl calc.
5150-5180	Ls - lt gy, wh, crm, lt brn, crpxln to micsuc, scat suc, sdy in pt, no vis por, scat mnrl flor, no cut.
5180-5200	Sh - gy, scat dk gy, blky, sl slty in pt, sl lmy in pt to sl calc, scat sl carb in pt.
5200-5220	Ls - lt brn, lt gy, crm, wh, crpxln, dns, sl chlky, scat arg in pt, no por, gd mnrl flor, no cut, sh - gy, dk gy, brn-gy, blky, mod frm, sl calc.
5220-5240	Ls - lt gy, lt brn, brn-gy, crpxln, arg in pt, chlky in pt, dns, no por.

5240-5280	Sh - gy, brn, slty to sl sdy, lmy in pt, scat blk carb sh, ls - brn, lt gy, gy brn-gy, crpxln to scat sl suc, sdy to sl slty in pt, scat shly in pt, dns, no vis por, no stn, no cut.
5280-5340	Sh - rd, dk rd, dk brn, gy, dk gy, blky to scat plty, scat sdy to slty in pt, sft to mod frm, calc to scat sl calc, scat brn ls, scat blk carb sh, scat wh anhy.
5340-5350	Ls - wh, crm, lt brn, dns, crpxln, chlky in pt, arg in pt, scat tr fos, no vis por, no stn, no cut, sh - dk gy-gn, gy, dk gy, blky to plty, sl slty in pt, sft to mod frm.
5350-5380	Sh - gy, dk gy, dk gy-gn, blky to plty in pt, subwxy to wxy, sft scat rd sh, scat anhy in pt, scat ls - brn, dk brn, gy, brn, crpxln, dns, frm, no vis por, no stn, no cut.
5380-5410	Sh - gy, scat rd, dk gy, dk gy-gn, brn, sl slty to sl sdy in pt, blky, scat subwxy, sft to mod frm.
5410-5470	Sh - gy to dk gy, dk brn, dk grn-gy, blky to scat plty in pt, frm to sft, sl calc, carb in pt, scat slty in pt w ls - lt gy, wh crm, scat brn, crpxln, dns, sl anhy in pt, scat arg in pt, no vis por, no stn.
5470-5500	Ls - lt gy, gy, crm, wh, micxln to sl suc, arg in pt to scat slty in pt, sft to scat mod frm, no vis por, no stn, no cut.
5500-5540	Sltst - lt gy to gy, crm, blky, calc to lmy, chlky in pt, sft to scat mod frm, sh - gy to dk gy, dk gn-gy, blky, subwaxy, sl calc to scat non-calc, scat lt brn to brn chrt.
5540-5560	Ls - brn, dk brn, gy, dk gy, crpxln, scat chlky in pt, sft to mod frm, sl slty in pt, sh - gy, dk gy, dk brn, scat subwxy, slty, lmy in pt.
5560-5600	Sh - gy, dk gy, blky to scat plty, lmy in pt, frm to mod frm, scat sft, scat slty in pt, scat carb in pt, ls - gy, dk gy, dk brn, dk grn-gy, shly in pt, micxln to crpxln, dns, hd, tr vis por, no stn, no cut, arg, scat sl chlky.
5600-5620	Sh - dk brn, dk gy, gy, scat rd, blky to scat plty in pt, scat slty, subwxy to wxy, non-calc to sl calc w ls - brn, lt gy, gy-brn, crpxln, dns, sl arg in pt, no vis por.
5620-5640	Ls - brn, lt brn, crm, lt gy-brn, crpxln to micxln, dns, arg in pt, abnt brn, lt brn chrt, no por, no stn, no cut.

5640-5650	Sh - gy, dk gy, dk brn, dk gy-brn, blky to plty in pt, sl calc to sl lmy in pt, slty, ls - brn, dk brn, gy, gy-brn, crpxln, dns, sl shly.
5650-5670	Sh - dk brn, dk gy, scat gy, blky to sl plty in pt, carb in pt, sl anhy in pt, slty in pt, calc to sl lmy in pt, mod frm.
5670-5690	Sh - lt gy, gy, slty to sl sdy in pt, blky, calc to sl lmy in pt, mod frm to sft, scat blk to dk gy carb sh.
5690-5720	Ls - wh, crm, lt brn, lt gy, crpxln, scat arg in pt, abnt chrt, no vis por, no stn, no cut, sh - dk brn, gy, blky, calc to sl lmy in pt.
5720-5760	Sh - dk brn, gy to dk gy, scat rd, blky to scat plty in pt, slty in pt, sft to mod frm, sl calc, scat ls - brn, lt brn, gy, gy-brn, crpxln, dns, scat sl arg in pt, scat chrt, no por, no stn, no cut.
5760-5800	Ls - lt brn, wh, crm, brn, lt gy, gy-brn, crpxln to scat sl micxln, scat arg in pt, scat anhy, dns, no vis por, no stn, no cut, sh - gy, dk gy, dk gn-gy, blky, slty in pt, subwxy, sl calc, sft to mod frm.
5800-5820	Ls - wh, crm, lt gy, lt brn-gy, crpxln to micxln, dns, sl arg in pt, scat fos, scat sl anhy in pt, no vis por, no stn, gd mnrl flor, no cut.
5820-5860	Sh - gy, dk gy, dk brn, blky to scat sl plty, sft to mod frm, sl calc to scat non-calc, sl slty in pt, ls - brn, lt brn, gy, gy-brn, crpxln to scat micxln, dns, sl arg in pt, scat sl anhy in pt, no vis por, no stn, scat mnrl flor, no cut.
5860-5870	Ls - lt to m gy, m brn-gy, crpxln to micxln, dns, sl arg in pt, scat anhy in pt, mod frm, no vis por, gd mnrl flor, no stn, no cut.
5870-5880	Ls - lt to m gy, m brn-gy, crpxln to micxln, dns, arg in pt, scat sl anhy in pt, no por with sh - m to dk gy, scat blk, blky to plty, sft to mod frm, scat sl slty in pt, sl calc to scat lmy in pt.
5880-5900	Sh - m gy, scat dk gy, m brn-gy, blky to plty, sl slty in pt, sl lmy in pt, mod frm, ls - lt to m gy, brn-gy, crpxln, dns, arg to shly in pt, scat anhy in pt.
5900-5950	Ls - lt gy, lt brn, brn-gy, crpxln to scat micxln, dns, arg in pt, scat anhy in pt, abnt chrt - lt to m brn, no vis por, no stn, gd mnrl flor, no cut, tr scat fos.

5950-6000	Sh - dk gy, scat blk, m gy, dk brn, plty to scat blky, sl slty in pt, sl calc, scat subwxy.
6000-6010	Sh - blk, dk brn, dk gy, blky to scat plty, mod frm to frm, slty in pt, sl calc scat lmy in pt, scat anhy, ls - brn, brn-gy, dsn, crpxln, no vis por, no stn, no cut.
6010-6020	Ls - dk brn, scat brn, dns, crpxln, hd, sl shly to sl carb in pt, no vis por, no stn, no cut, scat anhy.
6020-6080	Anhy - wh, crm, sft, scat xln, ls - dk brn, dk gy-brn, brn, crpxln to micsuc, sl slty to sl sdy in pt, anhy sh - dk gy, gy to blk, dk ban, blky to plty, sl slty in pt, sl calc to scat sl lmy in pt, anhy w lt brn, ls incl.
6080-6120	Ls - brn, lt brn, gy-brn, gy, crpxln to micxln, dns, scat sl arg, anhy in pt, no vis por, no stn, no cut, scat anhy incl, sh - gy, dk gy, dk gn-gy, blky, slty in pt, calc to limy in pt, scat anhy in pt.
6120-6140	Ls - gy, lt gy, crm, lt brn, brn, crpxln to scat micxln, dns, arg, no vis por, no stn, gd mnrl flor, no cut.
6140-6160	Sh - blk, dk gy, blky to sl plty, sft to mod frm, calc to sl lmy in pt, sl slty in pt, ls - lt gy, gy, crm, dns, crpxln, mod frm, scat anhy in pt, scat sl arg in pt, no vis por, no stn, gd mnrl flor, no cut.
6160-6200	Anhy - wh, scat clr, crm, sft ls - m gy, lt gy, dns, crpxln, anhy, scat sl arg in pt, no stn, gd mnrl flor, no cut, sh - blk, dk gy, blky to sl plty, sft to mod frm, sl carb, sl lmy.
6200-6210	Sh - blk, dk gy, dk brn, blky to sl plty, sft to scat mod frm, sl calc to scat sl lmy in pt, scat carb in pt, ls - m gy, scat lt gy, brn-gy, crpxln to crpsuc, dns, arg in pt, scat anhy in pt, dolic in pt, no vis por, no stn, no flor, no cut.
6210-6240	Sh - dk gy, blk, blky to scat plty, scat splty in pt, sft, sl calc to non-calc, carb in pt, sl slty in pt.
6240-6250	Sh - blk, dk gy, pred blky to sl plty, sft, sl calc to non-calc, carb in pt, ls - dk brn, brn, gy-brn, micxln to micsuc, dolic in pt, anhy in pt, no stn, no vis por, no cut.
6250-6260	Ls - m brn, brn-gy, m gy, micxln, dolic in pt, dns, no vis por, no stn, no cut, dol - brn, gy, gy-brn, micxln to sl crpsuc, dns, arg in pt, anhy in pt, no vis por, no stn, sh - dk gy, dk brn, blk, blky, sl lmy to dolic in pt, sft to mod frm, sl gn-gold flor w tr sl fnt bld cut.

6260-6300	Anhy - wh, clr, sft with ls - brn, m gy, gy-brn, micxln to micsuc, dns, arg to anhy in pt, dolic, no vis por, no stn, no cut, dol - m brn-gy, dns, micsuc, anhy fill, sl slty in pt, no vis por, no h-c flor, no cut, scat sh - blk, dk gy, blky, sl plty in pt, sl calc to sl lmy in pt, scat carb in pt, slty in pt.
6300-6320	Dol - lt brn, gy, brn, m gy, dns, micsuc to crpsuc, anhy fill, sl lmy in pt, no stn, no vis por, scat mnrl flor, no h-c flor, no cut, ls - m gy, m brn, m gy-brn, dns, anhy fill to scat anhy in pt, sl dolic in pt, no stn, no vis por, no cut, no h-c flor.
6320-6350	Sh - blk, dk gy, dk brn-blk, sft to v sft, blky to splty in pt, calc to sl lmy in pt, carb.
6350-6370	Ls - dk brn, m gy, m to dk gy-brn, micsuc scat micxln, dns, arg to anhy fill, shly in pt, no vis por, no stn, scat mnrl flor, no cut, sl dolic in pt, sh - blk, dk gy, dk brn-blk, sft, calc to scat sl lmy in pt, carb in pt.
6370-6375	Salt.

4480-4520	Shale - gray to scattered black, grayish-green, scattered red, blocky, soft, slightly carbonaceous in part, calcareous, scattered silty in part; scattered limestone - brown, gray, scattered pink, cryptocrystalline, dense, firm; scattered chert; sandstone - light gray, light greenish-gray, scattered red, very fine grained to medium grained, poor to moderately sorted, subangular, calcareous, tight, scattered anhydritic.
4520-4550	Sandstone - white, light gray, light pink, fine grained to medium grained, scattered very fine grained, subangular to angular, poor to moderately sorted, tight, dense, micaceous; shale - red, orange, purple, dark lavender, grayish-green, brown, scattered dark brown, blocky, soft to moderately firm, calcareous, micaceous, silty in part; scattered anhydrite in part.
4550-4610	Shale - dark brown, dark reddish-brown, dark grayish-brown, blocky, scattered slightly silty in part, scattered slightly bentonitic; scattered mica; trace scattered chert - brown, dark brown; siltstone - reddish-brown, blocky, calcareous, soft to moderately firm.
4610-4650	Sandstone - white, light gray, red, predominantly very fine to fine grained, calcareous, tight, subangular to angular, poor to scattered moderately sorted, slightly anhydritic to clay filled; shale - dark red, dark brown, blocky, calcareous, silty in part, micaceous in part, scattered anhydritic in part; traces of scattered limestone - gray, light pink, brown, cryptocrystalline, dense, shaly in part.
4650-4680	Shale - brown, red, brownish-red, blocky to slightly platy, soft to moderately firm, calcareous, scattered silty in part, scattered anhydritic in part; scattered sandstone - white, light gray, fine grained to very fine grained, subangular, calcareous, poor to moderately sorted.
4680-4720	Shale - green, blocky, soft, bentonitic, waxy, scattered slightly silty to sandy in part, micaceous in part; scattered limestone - gray, brownish-gray, cryptocrystalline, dense, no visible porosity.
4720-4730	Shale - dark brown, dark red, green, grayish-green, gray, blocky to scattered platly, soft to moderately firm, slightly silty in part, calcareous in part; scattered sandstone - gray, light gray, white, light red, very fine grained to fine grained, scattered medium grained, calcareous, poor to moderately sorted, subangular.

4730-4800	Shale - red, orange, dark red, dark brown, blocky to scattered platy in part, calcareous in part, scattered silty in part, micaceous in part, scattered anhydritic in part; sandstone - light gray, white, light brown, subangular, calcareous, poor to moderately sorted, tight, fine grained, scattered medium grained; scattered limestone - brown, gray, cryptocrystalline, dense, no visible porosity.
4800-4830	Limestone - light gray, light brownish-gray, crypto-crystalline, dense, slightly argillaceous in part, moderately firm, no visible porosity, no stain, no cut.
4830-4860	Siltstone - red, reddish-gray, blocky, shaly in part, soft to moderately firm, calcareous; shale - red, reddish brown, brown, blocky, calcareous in part, silty in part, scattered mica in part.
4860-4880	Limestone - light brown, light gray, cream, light brownish-gray, cryptocrystalline, dense, scattered argillaceous in part, no visible porosity; sandstone - light gray, gray, white, cream, clay filled, fine grained, calcareous, subangular, poorly sorted, micaceous, silty in part.
4880-4890	Coal - black, vitreous with limestone - light brown, cream, light gray, light brownish-gray, cryptocrystalline, dense, scattered argillaceous in part, silty in part to sandy in part.
4890-4920	Limestone - light brown, light gray, brownish-gray, cream, dense, cryptocrystalline, argillaceous in part, no visible porosity, silty to scattered slightly sandy in part; shale - gray, red, reddish-gray, blocky to slightly platy, soft to moderately firm, calcareous to scattered limy in part.
4920-4940	Shale - gray, scattered dark gray, platy to blocky, moderately firm, calcareous to slightly limy in part, slightly silty in part, carbonaceous in part; limestone - brown, light brown, gray, light gray, brownish-gray, dense, cryptocrystalline, no visible porosity, scattered slightly argillaceous.
4940-4960	Limestone - brown, dark brown, cream, light gray, gray, dense, cryptocrystalline, scattered slightly argillaceous, no porosity; shale - gray, dark gray, platy to blocky, calcareous to slightly limy in part, moderately firm.
4960-4980	Limestone - cream, light gray, white, chalky to argillaceous, cryptocrystalline; shale - light gray, soft, blocky, calcareous to slightly limy in part.

4980-5010	Shale - brown, dark brown, gray, reddish brown, platy to blocky in part, moderately firm, scattered firm, calcareous to slightly calcareous, silty in part; limestone - brown, gray, brownish-gray, dense, cryptocrystalline, argillaceous, no porosity.
5010-5030	Limestone - light brown, white, cream, light gray, light brownish-gray, cryptocrystalline to scattered microcrystalline, dense, slightly argillaceous in part, scattered chalky, slightly fragmental in part, silty to sandy in part, trace scattered visible porosity, no stain, no cut, traces of scattered fossils.
5030-5040	Shale - red, brownish-gray, platy to blocky, soft to moderately firm, slightly calcareous to scattered slightly limy in part, silty in part.
5040-5050	Limestone - light brown, white, cream, light brownish-gray, cryptocrystalline to slightly microcrystalline, dense, slightly argillaceous in part, scattered slightly anhydritic, no visible porosity, no stain, no cut.
5050-5060	Shale - gray, dark gray, dark brown, platy to blocky, soft to moderately firm, carbonaceous in part; sandstone - light gray, gray, white, medium grained to fine grained, poorly sorted, subangular to angular, tight.
5060-5100	Limestone - brown, gray, grayish-brown, light gray, cryptocrystalline, scattered chalky, scattered slightly argillaceous in part, moderately firm scattered soft, dense, no visible porosity; shale - gray, dark gray, dark brown, scattered red, blocky to platy, soft to moderately firm, calcareous to slightly calcareous, scattered black carbonaceous shale.
5100-5150	Limestone - light gray, light brown, light brownish-gray, cryptocrystalline to scattered microcrystalline, dense, argillaceous in part, chalky in part, soft to moderately firm, no visible porosity, no stain, no cut, scattered slightly fragmental; interbedded scattered shale - gray, dark gray, greenish-gray, platy to blocky, subwaxy, soft to scattered slightly moderately firm, calcareous to slightly calcareous.
5150-5180	Limestone - light gray, white, cream, light brown, cryptocrystalline to microcrystalline; scattered sucrosic, sandy in part, no visible porosity, scattered mineral fluorescence, no cut.

5180-5200	Shale - gray, scattered dark gray, blocky, slightly silty in part, slightly limy in part to slightly calcareous, scattered slightly carbonaceous in part.
5200-5220	Limestone - light brown, light gray, cream, white, cryptocrystalline, dense, slightly chalky, scattered argillaceous in part, no porosity, good mineral fluorescence, no cut; shale - gray, dark gray, brownish-gray, blocky, moderately firm, slightly calcareous.
5220-5240	Limestone - light gray, light brown, brownish-gray, cryptocrystalline, argillaceous in part, chalky in part, dense, no porosity.
5240-5280	Shale - gray, brown, silty to slightly sandy, limy in part, scattered black carbonaceous shale; limestone - brown, light gray, gray, brownish gray, cryptocrystalline to scattered slightly sucrosic, sandy to slightly silty in part, scattered shaly in part, dense, no visible porosity, no stain, no cut.
5280-5340	Shale - red, dark red, dark brown, gray, dark gray, blocky to scattered platy, scattered sandy to silty in part, soft to moderately firm, calcareous to scattered slightly calcareous; scattered brown limestone; scattered carbonaceous shale; scattered white anhydrite.
5340-5350	Limestone - white, cream, light brown, dense, cryptocrystalline, chalky in part, argillaceous in part, scattered trace fossils, no visible porosity, no stain, no cut; shale - dark grayish-green, gray, dark gray, blocky to platy, slightly silty in part, soft to moderately firm.
5350-5380	Shale - gray, dark gray, dark grayish-green, blocky to platy in part, subwaxy to waxy, soft; scattered red shale; scattered anhydrite in part; scattered limestone - brown, dark brown, grayish-brown, cryptocrystalline, dense, firm, no visible porosity, no stain, no cut.
5380-5410	Shale - gray, scattered red, dark gray, dark grayish-green, brown, slightly silty to slightly sandy in part, blocky, scattered subwaxy, soft to moderately firm.
5410-5470	Shale - gray to dark gray, dark brown, dark greenish-gray, blocky to scattered platy in part, firm to soft, slightly calcareous, carbonaceous in part, scattered silty in part with limestone - light gray, white, cream, scattered brown, cryptocrystalline, dense, slightly anhydritic in part, scattered argillaceous in part, no visible porosity, no stain.

5470-5500	Limestone - light gray, gray, cream, white, micro-crystalline to slightly sucrosic, argillaceous in part to scattered silty in part, soft to scattered moderately firm, no visible porosity, no stain, no cut.
5500-5540	Siltstone - light gray to gray, cream, blocky, calcareous to limy, chalky in part, soft to scattered moderately firm; shale - gray to dark gray, dark greenish-gray, blocky, subwaxy, slightly calcareous to scattered non-calcareous; scattered light brown to brown chert.
5540-5560	Limestone - brown, dark brown, gray, dark gray, crypto-crystalline, scattered chalky in part, soft to moderately firm, slightly silty in part; shale - gray, dark gray, dark brown, scattered subwaxy, silty, limy in part.
5560-5600	Shale - gray, dark gray, blocky to scattered platy, limy in part, firm to moderately firm, scattered soft, scattered silty in part, scattered carbonaceous in part; limestone - gray, dark gray, dark brown, dark brownish-gray, shaly in part, microcrystalline to cryptocrystalline, dense, hard, no visible porosity, no stain, no cut, argillaceous, scattered slightly chalky.
5600-5620	Shale - dark brown, dark gray, gray, scattered red, blocky to scattered platy in part, scattered silty, subwaxy to waxy, non-calcareous to slightly calcareous with limestone - brown, light gray, grayish-brown, cryptocrystalline, dense, slightly argillaceous in part, no visible porosity.
5620-5640	Limestone - brown, light brown, cream, light grayish-brown, cryptocrystalline to microcrystalline, dense, argillaceous in part, abundant brown - light brown chert, no porosity, no stain, no cut.
5640-5650	Shale - gray, dark gray, dark brown, dark grayish-brown, blocky to platy in part, slightly calcareous to slightly limy in part, silty; limestone - brown, dark brown, gray, grayish-brown, cryptocrystalline, dense, slightly shaly.
5650-5670	Shale - dark brown, dark gray, scattered gray, blocky to slightly platy in part, carbonaceous in part, slightly anhydritic in part, silty in part, calcareous to slightly limy in part, moderately firm.
5670-5690	Shale - light gray, gray, silty to slightly sandy in part, blocky, calcareous, to slightly limy in part, moderately firm to soft, scattered black to dark gray; carbonaceous shale.

5690-5720	Limestone - white, cream, light brown, light gray, cryptocrystalline, scattered argillaceous in part, abundant chert, no visible porosity, no stain, no cut; shale - dark brown, gray, blocky, calcareous to slightly limy in part.
5720-5760	Shale - dark brown, gray to dark gray, scattered red, blocky to scattered platy in part, silty in part, soft to moderately firm, slightly calcareous; scattered limestone - brown, light brown, gray, grayish-brown, cryptocrystalline, dense, scattered slightly argillaceous in part, scattered chert, no porosity, no stain, no cut.
5760-5800	Limestone - light brown, white, cream, brown, light gray, grayish-brown, cryptocrystalline to scattered slightly microcrystalline, scattered argillaceous in part, scattered anhydritic, dense, no visible porosity, no stain, no cut; shale - gray, dark gray, dark greenish-gray, blocky, silty in part, subwaxy, slightly calcareous, soft to moderately firm.
5800-5820	Limestone - white, cream, light gray, light brownish-gray, cryptocrystalline to microcrystalline, dense, slightly argillaceous in part, scattered fossils, scattered slightly anhydritic in part, no visible porosity, no stain, good mineral fluorescence, no cut.
5820-5860	Shale - gray, dark gray, dark brown, blocky to scattered slightly platy, soft to moderately firm, slightly calcareous to scattered non-calcareous, slightly silty in part; limestone - brown, light brown, gray, grayish-brown, cryptocrystalline to scattered micro - cryptocrystalline, dense, slightly argillaceous in part, scattered slightly anhydritic in part, no visible porosity, no stain, scattered mineral fluorescence, no cut.
5860-5870	Limestone - light to medium gray, medium brownish-gray, cryptocrystalline to microcrystalline, dense, slightly argillaceous in part, scattered anhydritic in part, moderately firm, no visible porosity, good mineral fluorescence, no stain, no cut.
5870-5880	Limestone - light to medium gray, cryptocrystalline to microcrystalline, dense, argillaceous in part, scattered slightly anhydritic in part, no porosity with shale - medium to dark gray, scattered black, blocky to platy, soft to moderately firm, scattered slightly silty in part, slightly calcareous to scattered limy.

5880-5900	Shale - medium gray, scattered dark gray, medium brownish-gray, blocky to platy, slightly silty in part, slightly limy in part, moderately firm; limestone - light to medium gray, brownish-gray, cryptocrystalline, dense, argillaceous to shaly in part, scattered anhydritic in part.
5900-5950	Limestone - light gray, light brown, brownish-gray, cryptocrystalline to scattered microcrystalline, dense, argillaceous in part; scattered anhydrite in part; abundant chert - light to medium brown, no visible porosity, no stain, good mineral fluorescence, no cut, traces of scattered fossils.
5950-6000	Shale - dark gray, scattered black, medium gray, dark brown, platy to scattered blocky, slightly silty in part, slightly calcareous, scattered subwaxy.
6000-6010	Shale - black, dark brown, dark gray, blocky to scattered platy, moderately firm to firm, silty in part, slightly calcareous, scattered limy in part; scattered anhydrite; limestone - brown, brownish-gray, dense, cryptocrystalline, no visible porosity, no stain, no cut.
6010-6020	Limestone - dark brown, scattered brown, dense, cryptocrystalline, hard, slightly shaly to slightly carbonaceous in part, no visible porosity, no stain, no cut; scattered anhydrite.
6020-6080	Anhydrite - white, cream, soft scattered crystalline; limestone - dark brown, dark grayish-brown, brown, cryptocrystalline to microcrystalline, slightly silty to slightly sandy in part; shale - dark gray, gray to black, dark brown, blocky to platy, slightly silty in part, slightly calcareous to scattered slightly limy in part; anhydrite with light brown limestone inclusions and anhydrite with limestone inclusions.
6080-6120	Limestone - brown, light brown, grayish-brown, gray, cryptocrystalline to microcrystalline, dense, scattered slightly argillaceous, anhydritic in part, no visible porosity, no stain, no cut, scattered anhydritic inclusions; shale - gray, dark gray, dark greenish-gray, blocky, silty in part, calcareous to limy in part, scattered anhydritic in part.
6120-6140	Limestone - gray, light gray, cream, light brown, brown, cryptocrystalline to scattered microcrystalline, dense, argillaceous, no visible porosity, no stain, good mineral fluorescence, no cut.

6140-6160	Shale - black, dark gray, blocky to slightly platy, soft to moderately firm, calcareous to slightly limy in part, slightly silty in part; limestone - light gray, gray, cream, dense, cryptocrystalline, moderately firm, scattered anhydritic in part, scattered slightly argillaceous in part, no visible porosity, no stain, good mineral fluorescence, no cut.
6160-6200	Anhydrite - white, scattered clear, cream, soft with limestone - medium gray, light gray, dense, cryptocrystalline, anhydritic, scattered slightly argillaceous in part, no stain, good mineral fluorescence, no cut; shale - black, dark gray, blocky to slightly platy, soft to moderately firm, slightly carbonaceous, slightly limy.
6200-6210	Shale - black, dark gray, dark brown, blocky to slightly platy, soft to scattered moderately firm, slightly calcareous to scattered slightly limy in part, scattered carbonaceous in part; limestone - medium gray, scattered light gray, brownish-gray, cryptocrystalline to cryptosucrosic, dense, argillaceous in part; scattered anhydrite in part, dolomitic in part, no visible porosity, no stain, no fluorescence, no cut.
6210-6240	Shale - dark gray, black, blocky to scattered platy, scattered splintery in part, soft, slightly calcareous to non-calcareous, carbonaceous in part, slightly silty in part.
6240-6250	Shale - black, dark gray, predominantly blocky to slightly platy, soft, slightly calcareous to non-calcareous, carbonaceous in part; limestone - dark brown, brown, grayish-brown, microcrystalline to microsucrosic, dolomitic in part, anhydritic in part, no stain, no visible porosity, no cut.
6250-6260	Limestone - medium brown, brownish-gray, medium gray, microcrystalline, dolomitic in part, dense, no visible porosity, no stain, no cut; dolomite - brown, gray, grayish-brown, microcrystalline to slightly cryptosucrosic, dense, argillaceous in part, anhydritic in part, no visible porosity, no stain; shale - dark gray, dark brown, black, blocky, slightly limy to dolomitic in part, soft to moderately firm, slight greenish-gold fluorescence with traces of slight faint bleeding cut.
6260-6300	Anhydrite - white, clear, soft with limestone - brown, medium gray, grayish-brown, microcrystalline to microsucrosic, dense, argillaceous to anhydritic in part, dolomitic, no visible porosity, no stain, no cut; dolomite - medium brownish-gray, dense, microsucrosic, anhydritic in part, slightly silty in part, no visible porosity, no hydrocarbon fluorescence, no cut; scattered shale - black, dark gray, blocky, slightly platy in part, slightly calcareous to slightly limy in part, scattered carbonaceous in part, silty in part.

6300-6320	Dolomite - light brown, grayish brown, medium gray, dense, microsucrosic to cryptosucrosic, anhydritic filled, slightly limy in part, no stain, no visible porosity, scattered mineral fluorescence, no hydrocarbon fluorescence, no cut; limestone - medium gray, medium brown, medium grayish-brown, dense, anhydritic filled to scattered anhydritic in part, slightly dolomitic in part, no stain, no visible porosity, no cut, no hydrocarbon fluorescence.
6320-6350	Shale - black, dark gray, dark brownish-black, soft to very soft, blocky to splintery in part, calcareous to slightly limy in part, carbonaceous.
6350-6370	Limestone - dark brown, medium gray, medium to dark grayish-brown, microsucrosic, scattered microcrystalline, dense, argillaceous to anhydritic filled, shaly in part, no visibile porosity, no stain, scattered mineral fluorescence, no cut, slightly dolomitic in part; shale - black, dark gray, dark brownish-black, soft, calcareous to scattered slightly limy in part, carbonaceous in part.
6370-6375	Salt.

FINAL ANALYSIS

The Raymond T. Duncan No. 1-14 Bullpen Federal was drilled to a total depth of 6382 feet into the Chimney Rock (AKAH) Salt Member of the Paradox Formation. This wildcat was drilled to explore a seismic high and to see if any algal mound porosity build-up was present in the Ismay and Desert Creek Members of the Paradox Formation. This well was drilled with no geological difficulties. A salt mud system was tried at this location (70,000 PPM chlorides) and created problems in drilling this well. The mud aired up and made pumping the fluid difficult. Erratic and slow drilling accompanied these problems. Pump pressure dropped and at times made drilling impossible. Some of these problems could have been eased or eliminated if better equipment was present on the rig and better monitering by the rig crews. A decision was made to change the mud company and the mud to a saturated salt system (215,000 PPM Chlorides). After mixing and conditioning the mud, drilling was resumed with no more difficulties. The crew of mudloggers from Tooke Engineering did an excellent and commendable job.

It was determined that the Paradox Formation did come in high, but with no oil or significant gas shows. In evaluating the zones penetrated at this location:

Upper Ismay - very thin tight limestones with no oil or gas shows. Background gas was 10-15 units total gas throughout the Upper Ismay. No significant porosity was penetrated in the Upper Ismay.

Lower Ismay - no significant porosity was drilled in this zone. Small increases in gas was observed while penetrating the black shales of the Lower Ismay. There are no pay zones in the Lower Ismay.

Upper Desert Creek - a thin two foot zone was present from 6239-6241 with some porosity and a small gas show. No porosity was observed nor any oil show was seen in the samples. There are no significant pay zones in the Upper Desert Creek.

Lower Desert Creek - very little porosity was present in the Lower Desert Creek. One very small gas increase was observed (16 units total gas) at 6306-6308. No oil show was observed from examination of the samples. There are no significant pay zones in the Lower Desert Creek.

No significant reservoir capabilities were penetrated at this location.

It was recommended that this well be plugged and abandoned.

TOOKE ENGINEERING

P.O. BOX 3200
CASPER, WYOMING

COMPANY RAYMOND T. DUNCAN OIL PROPERTIES
WELL #1-14 BULLPEN FEDERAL
SEC. 14 T. 38S R. 23E
COUNTY SAN JUAN STATE UTAH
SUPERVISOR LLOYD KITZMILLER-TRICIA LEJEUNE
UNIT T-150 DATE 12/4/82

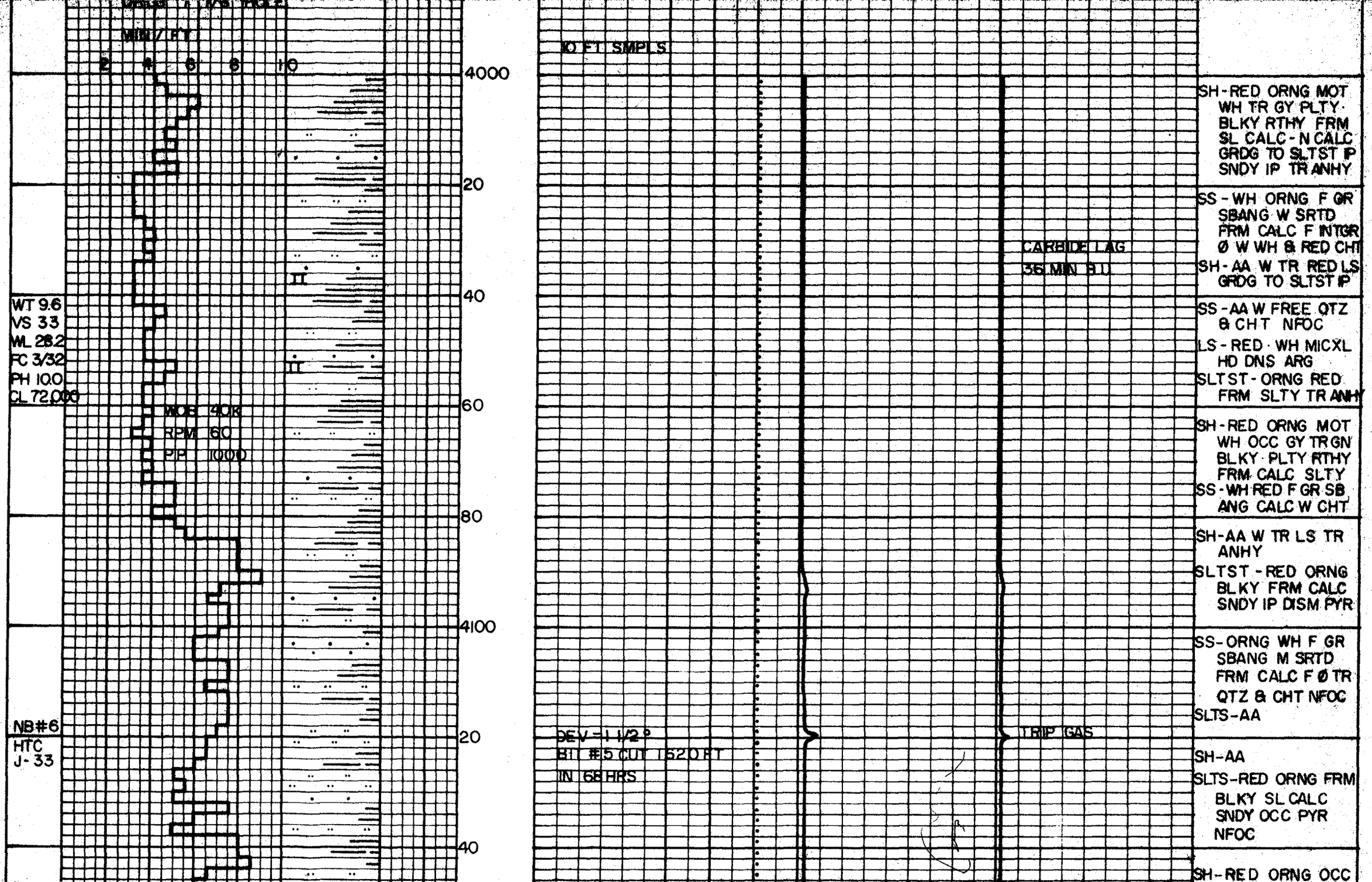
Wt.
Vis.
WL
FC
pH
Cl

LAT—Logged After Trip
CO—Circulated Out
NO—No Returns
DST—Drill Stem Test
NB—New Bit

SAND ____ SALT ____
LIME ____ DOLOMITE ____
SHALE RED ____ SILTSTONE ____
SHALE GRAY ____ ANHYDRITE ____

CHROMATOGRAPH
MUD GAS ANALYSIS
Butanes 04% / Div. 10 UNITS
Propane 03% / Div. 10 UNITS
Ethane 03% / Div. 10 UNITS
Methane 24% / Div. 25 UNITS
Helium 0 Total Gas 10 UNITS/DIV

Mud Data Etc.	DRILLING RATE Min. / Ft.	LITHOLOGY % In Samples 75 50 25	% Fluo	Porosity TFG	Depth & Core Record	CUTTINGS Gas Analysis Formation Description	LITHOLOGICAL DESCRIPTION and other Pertinent Data
						SPUDDED 11/28/82 TOOKE ENGINEERING ARRIVED 12/4/82 COMMENCED LOGGING 12/5/82 AT 4000 FT SET 13 3/8" CONDUCTOR PIPE TO 113 FT SET 8 5/8" SURF CSG TO 2500 FT GD ELEV 5426 KB ELEV 5439	
	BIT #1 OSCIG 17 1/2" IN AT GRASS ROOTS BIT #2 J22 12 1/4" IN AT 114 FT BIT #3 J22 12 1/4" IN AT 1478 FT BIT #4 F-2 12 1/4" IN AT 2106 FT BIT #5 F-3 7 7/8" IN AT 2500 FT					CHROMATOGRAPH CALIBRATION C_1 = 10 5 UNITS = 1% C_2 = 320 UNITS = 1% C_3 = 325 UNITS = 1% IC_4 = 280 UNITS = 1% NC_4 = 200 UNITS = 1%	
DRLG WITH MUD						C_4 C_3 C_2 C_1 HWTG UNITS 10 10 10 25 10 PERCENT .04 .03 .03 24 - PPM 416 307 305 2380 -	


MIN / FT
2
4
6
8
10
4000
20
40
60
80
4100
20
40
WT 9.6
VS 33
WL 28.2
FC 3/32
PH 10.0
CL 72,000
WOB 40K
RPM 60
PP 1000
NB #6
HTC
J-33
10 FT SMPLS
CARBIDE LAG
36 MIN B.U.
DEV = 1 1/2°
BIT #5 CUT 1620 FT
IN 68 HRS
TRIP GAS
SH - RED ORNG MOT WH TR GY PLTY BLKY RTHY FRM SL CALC - N CALC GRDG TO SLTST IP SNDY IP TR ANHY
SS - WH ORNG F GR SBANG W SRTD FRM CALC F INTGR Ø W WH & RED CHT
SH - AA W TR RED LS GRDG TO SLTST IP
SS - AA W FREE QTZ & CHT NFOC
LS - RED · WH MICXL HD DNS ARG
SLTST - ORNG RED FRM SLTY TR ANHY
SH - RED ORNG MOT WH OCC GY TR GN BLKY · PLTY RTHY FRM CALC SLTY
SS - WH RED F GR SB ANG CALC W CHT
SH - AA W TR LS TR ANHY
SLTST - RED ORNG BLKY FRM CALC SNDY IP DISM PYR
SS - ORNG WH F GR SBANG M SRTD FRM CALC F Ø TR QTZ & CHT NFOC
SLTS - AA
SH - AA
SLTS - RED ORNG FRM BLKY SL CALC SNDY OCC PYR NFOC
SH - RED ORNG OCC